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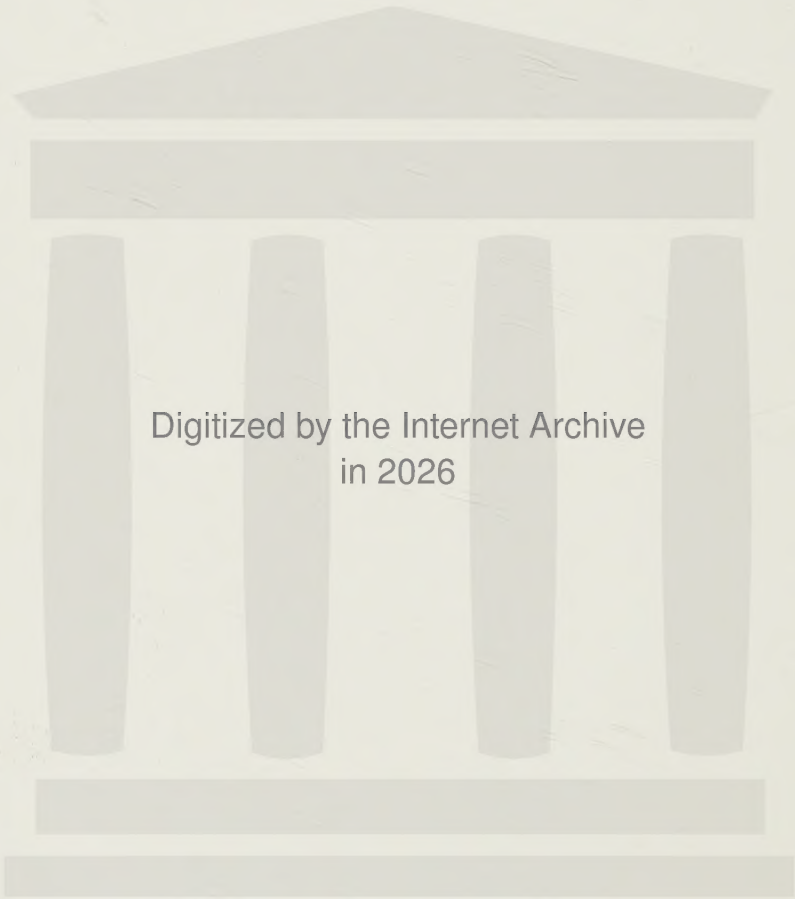
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THE WELLCOME
HISTORICAL MEDICAL
MUSEUM

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I-EM-HETEP
(Imhotep)
Ca. 650 B.C. Saite Period

THE WELLCOME HISTORICAL MEDICAL MUSEUM

54A, WIGMORE STREET, LONDON

HENRY S. WELLCOME
DIRECTOR

[illegible] MALCOLM, M.S.C. (Cantab.), F.R.S.E.
CURATOR

THE WELLCOME FOUNDATION LTD.
LONDON
1927
PRINTED IN ENGLAND

THE WELLCOME HISTORICAL MEDICAL MUSEUM

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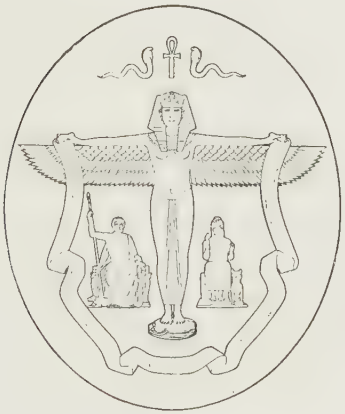

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L. W. G. MALCOLM, M.SC. (Cantab.), F.R.S.E.
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FOREWORD

The Wellcome Historical Medical Museum was founded by Mr. Henry S. Wellcome in 1913. It is the result of collections made during many years in various parts of the world, and, at the request of the chief officials, was adopted as the Museum of the Section of History of Medicine, which formed part of the XVIIth International Congress of Medicine held in London in August of that year.

It was inaugurated by the late Sir Norman Moore, Bt., LL.D., M.A., M.D., F.R.C.P., then President of the Section, on Tuesday, June 24, 1913. The Museum was visited by large numbers of the delegates and members of the International Congress of Medicine, also by many medical practitioners and others interested, from all parts of the world, most of whom expressed their appreciation of its usefulness.

After closing for a few months for the purpose of re-arrangement, the Museum, with the addition of several new sections and many objects of historical interest, was re-opened as a permanent institution.

On Thursday, October 14, 1926, it was re-opened, after complete re-organisation, by Sir Humphry Rolleston, Bt., K.C.B., M.D., F.R.C.P., Regius Professor of Physic, University of Cambridge. Many important additions had been made to the collections and the arrangement of the material in the various sections altered. Several of the sections had been developed, and new ones instituted. In particular the War, Lister, Jenner and similar sections had been considerably enlarged. These include Dr. Edward Jenner's relics, original manuscripts, instruments, etc., connected with his development of vaccine treatment for small-pox, and also Lord Lister's original appliances, chemical reagents and other materials which he used in the development of his methods of antiseptic surgery as practised by him in the "Lister Ward" of the Glasgow Infirmary and elsewhere. A portion of the original "Lister Ward," reconstructed from the actual material and fitted with the original equipment, forms an important exhibit in the Museum.

Throughout the Museum more effective lighting had been installed, and the material had been arranged in new cases so that the visitor might inspect the objects to the best advantage and with the utmost ease.

The collections are international in character, and cover a wide field, including Medicine, Surgery, Chemistry, Pharmacy and the Allied Sciences. The Museum is designed to represent the history of these various branches of the art of healing throughout the world, and their practice is illustrated by objects, instruments and appliances of historical interest, and by plastic and pictorial art.

Medicine has a history which has touched every phase of life and art, and is, to a large extent, bound up with the records of human existence from the earliest times. By its study, fresh fields of medical research are suggested, and the interest in others, still undeveloped, is stimulated. Our views of progress, especially with regard to medical treatment, are often exaggerated, owing to our ignorance of the past ; and careful research into ancient records has revealed the fact that modern methods are often mere repetitions of those practised in long past ages. Through the study of medical history, discoveries of great value, quite forgotten and buried in the records of the past, have been brought to light.

The importance of museums as an integral part of teaching is now fully recognised, and, by intelligent classification and systematic grouping of objects, it is our aim and purpose to make the Wellcome Historical Medical Museum of distinct educational value to research workers, students and others interested in the subjects with which it deals.

One of the central aims of this Museum is to connect the links in the chain of human experience and living things which stretch back from the present time into the most remote ages of the great past. Efforts will be made to trace the genesis of many branches of the healing art, and their development will be illustrated by instruments and appliances connected with them from their inception to the present day. It is also an important feature in the plans of this Museum to conserve the relics of workers and

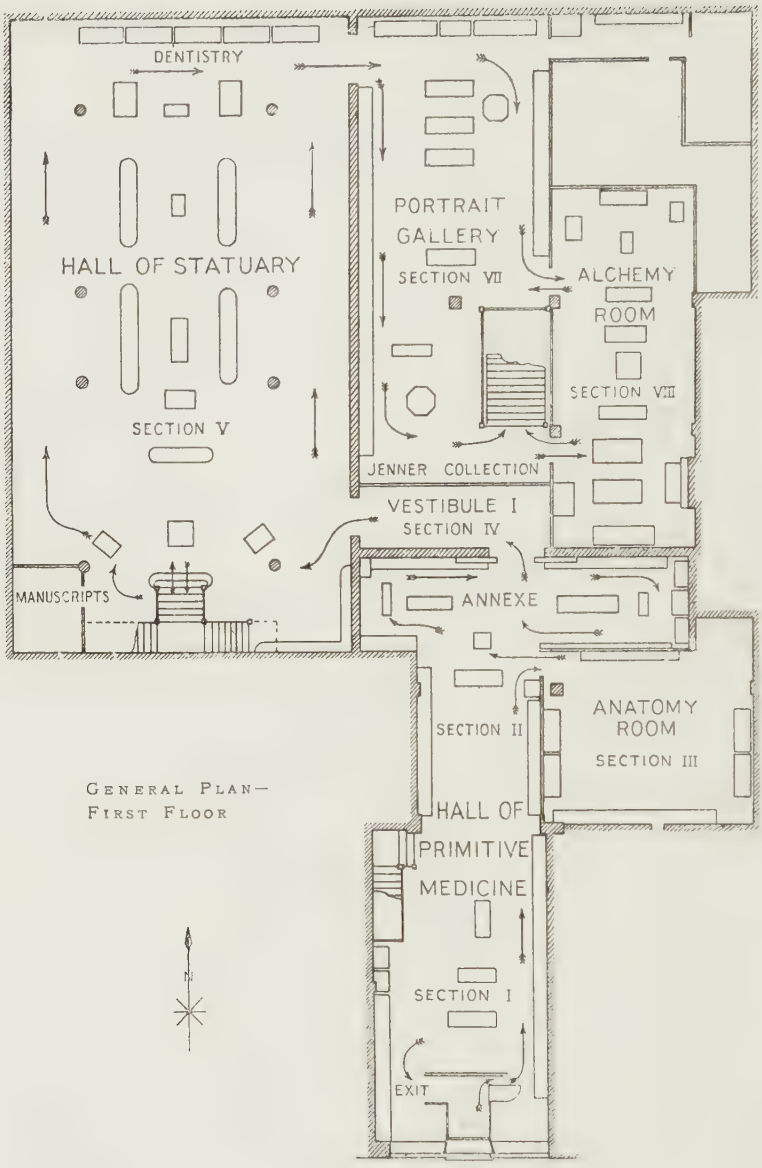
discoverers in various branches of Medicine and the Allied Sciences, and so hand down to posterity the names of those who in the course of time might be forgotten, thus rendering honour to whom honour is due. Such relics, when placed in this Museum, will form a permanent memorial and tribute to the work and achievements of those who have distinguished themselves in various realms of science in past years.

Many of these collections have been presented to the Museum as the most appropriate depository for such relics, etc.

Gifts or loans of this description from relatives or executors of famous men will receive the greatest possible care and be permanently preserved.

In this connection the offer of MSS., early printed books, diplomas, autograph letters, ancient surgical instruments, appliances and other objects of historical medical interest, will be much appreciated either as donations or loans for exhibition in the Museum. All communications should be addressed to :—

The Conservator,
The Wellcome Historical Medical Museum,
54A, Wigmore Street,
London, W.1



General Plan—
First Floor

NOTE. -During the Lister Centenary Exhibition the main collection of Lister Instruments, Portraits, Relics, etc., will be shown in the Hall of Statuary (Section V).

Main Floor

SECTION I

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Hall of Primitive Medicine. Room I 21

Primitive Treatment — Medicine Men — Primitive Secret Societies—Effigies—Ancestor Cult—Skull Cult, etc.

SECTION II

Hall of Primitive Medicine. Room II 26

Charms — Amulets — Talismans — Magical Procedure — Artificial Deformation of the Body.

SECTION III

Anatomy Room 31

SECTION IV

Vestibule 1 33

SECTION V

Hall of Statuary 35

Deities of Healing—Evolution of Surgical Instruments—Development of Oriental Medical Practice—Native Instruments—Greek, Roman and Egyptian Medical and Surgical Procedure—History of Dentistry, etc.

NOTE.—During the Lister Centenary Exhibition the major portion of the Lister Collection will be shown in the Hall of Statuary (Section V) and in its Gallery (Section VI). See also Section IX (page 71).

PAGE

SECTION VI

GALLERY 43

Evolution of the Microscope—Ophthalmic Instruments—Optical Apparatus—Evolution of the Spectacle—Acoustical Instruments—Electrical Instruments—History of Chemistry — Incunabula — Medals—Diplomas, etc.

SECTION VII

PORTRAIT GALLERY 49

Pomanders—Articles of Toilet, etc.—History of Surgical Instruments, etc.

JENNER COLLECTION 51

Personal Relics—Historical Relics—Portraits and Oil Paintings of Medical and Surgical Interest.

SECTION VIII

ALCHEMY ROOM 56

History of Alchemy—Astrology—Divination, etc.

GROUND FLOOR (BACK)

SECTION IX

WAR SECTION 61

History of Orthopædics 65

Obstetrical Section 67

LISTER SECTION 71

VESTIBULE 2 71

Plague—Leprosy—Torture, etc.

GROUND FLOOR (FRONT)

SECTION X

PHARMACEUTICAL SECTION 75

History of Pharmacy and Materia Medica.

This Handbook is intended to indicate, in a general way, the chief features and objects exhibited in the Museum

PART OF THE HALL OF PRIMITIVE MEDICINE WELLCOME HISTORICAL MEDICAL MUSEUM

SECTION I

HALL OF PRIMITIVE MEDICINE

ROOM I

The arrangement of the material shown in the cases of this room is based on the practices of the craft of the native layman and that of the so-called medicine man.

THE LAYMAN'S CRAFT is purely empirical in spirit and method. He has evolved systems of bandaging, poulticing, lancing, bone-setting, amputation, massage, cupping and bleeding, cauterising, hydro-therapeutics, the use of purges and emetics as well as the use of tried drugs. All these are to be regarded as the result of a real, if somewhat uncritical, experience.

When the methods of the layman fail, THE PROFESSIONAL OR MEDICINE MAN is called in. Very often he holds a leading position in the tribe, but in the majority of cases he works anti-socially, by "black magic."[1] The medicine man very often has to undergo an intensive training, and may

[1] Magic may be of two types, *white* or *black*, according to whether it is benevolent (social) or malevolent (anti-social) in character.

acquire a knowledge of leech-craft, but in most cases his work is metempirical or transcendental. Although members of a tribe may have simple ailments treated by the layman, the greater share of the treatment of sickness lies in the hands of the medicine man.

THE MEDICINE MAN, as well as the priest, works by magic, and it is believed almost universally by primitive races that magic is the cause of disease. The supposed origin and mechanism of magical influences may vary, but the fundamental ideas are universally the same.

THE EVIDENCES OF MAGICAL THERAPEUSIS may be traced from the stone ages to present-day primitive races. The early examples consist of amulets of pieces of bone trephined from the skull, and a variety of objects which were carried on the person. It seems evident that from all ages the demonistic idea existed, associated with various forms of mysticism which have survived the different stages of religious beliefs.

A fetish figure from West Africa

CASES 1 TO 7

MEDICINE MEN IN EFFIGY from West, Central and East Africa, illustrating their costumes, equipment and objects used in their ceremonial.

CASES 8 TO 11

CEREMONIAL MASKS used by members of secret societies in Africa and Oceania.

There are TWO MAIN TYPES OF "FETISHES"—the business and the private fetishes. The former are controlled by the tribal wizards or sorcerers, whilst the latter are usually amulets of various kinds. Their power is contained in the magical mixture which must be attached to them in some way. An important type of fetish is that used to trace offenders against the tribal customs or individuals. They may be in human form, or they may represent animals, sometimes with multiple heads.

The fetish is also believed to protect its possessor, or the in-dwelling spirit guards the individual owner. It is worshipped in order to bring good fortune in all undertakings.

CASES 12 TO 14

GODLINGS, PORTRAIT STATUETTES, DIVINING IMAGES, so-called fetish figures. Africa.

CASE 15

FETISH FIGURES, mainly from Equatorial Africa. Of especial interest are the divining effigies (so-called nail fetishes) from West Africa.

ANCESTOR CULT

ANCESTOR CULT is associated with a belief in a continuity of life in the home of the dead, and the ancestral ghosts are propitiated by means of offerings, etc. The respect for the ancestral dead is illustrated by means of portrait statuettes, effigies, ceremonial masks, etc.

CASES 16 AND 17

ANCESTRAL EFFIGIES, etc., Oceania and Africa; PORTRAIT STATUETTES and carved figures used in ancestor cult ceremonies, Africa, Indonesia and Oceania.

NORTH AMERICAN TOTEMISM

"TOTEM POLES" of the American Indians of the North-West Pacific coast are of the nature of animal familiars or guardian spirits. The poles may be considered to be partly heraldic in character, some of them illustrating local legends, whilst others are crest poles. They are associated with

totemism, but the animals and figures carved thereon are not invariably the totems of the tribe or owner.

Case 18

Totemic Cult Objects of the North-West American Indians.

SHRUNKEN HEADS FROM VARIOUS TRIBES

The shrunken mummified head, or tsantsa, is the most esteemed war trophy of certain tribes located on the eastern slopes of the Andes in Ecuador, Peru and Colombia. These trophies are prepared by different methods by different tribes.

Case 19

Shrunken Heads, prepared mainly by the tribes on the eastern slopes of the Andes; in Peru, Ecuador and Colombia, South America. Decorated Skulls from Oceania and Africa.

Cases 20 to 23

Specimens showing pathological abnormalities selected from a collection of human remains of prehistoric races, excavated by Mr. Henry S. Wellcome at a primitive African site at Gebel Moya, between the Blue and White Niles, A. E. Sudan. In this series a new method, especially devised for preserving human remains, is illustrated by specimens treated *in situ*. A reconstructed grave, showing skeleton of a female with necklace, labret, etc. Skeleton of a young male adult, etc. These remains are dated *ca.* 800 B.C.

EAST WALL

Carved wooden panels from Southern Nigeria, West Africa. Objects used by Medicine Men in their incantations, etc., ceremonial masks from Africa and Oceania.

WEST WALL

Nicobar Islander anti-demonistic figures; objects used by the head-hunting Dyaks (Borneo), the Naga tribes (Assam), etc.

SCREEN

PICTURES OF MEDICINE MEN, SORCERERS, etc., from all over the world.

OVER STAIRCASE

IBIBIO MEDICINE MAN PREPARING A SECRET MEDICINE, in effigy. A HEAD-HUNTER'S PILE DWELLING, South-East New Guinea.

CASES 24 AND 25

PRIMITIVE METHODS OF TREATMENT. Outfits, cups, instruments, vaccination, amulets and talismans, etc.

Skull of Aboriginal Man from New Ireland, showing holes made in trepanning

(See Case)

SECTION II

HALL OF PRIMITIVE MEDICINE

ROOM II

MAGIC

TANGIBLE EVIDENCES OF BELIEF in magic are to be found not only amongst prehistoric and modern primitive races, but even amongst the present-day civilised races. They include charms, amulets, talismans, mascots, etc., which are often carried on the person.

SYMPATHETIC MAGIC may be divided into two categories—contagious and homœopathic magic. The former is based on the belief that objects which were once related to one another, either by contact or possession, retain their connection even though separated. By obtaining a portion of a man's body (hair clippings, nail parings, etc.), a magician can injure the person from whom they came. Conversely, personal possessions, parts of animals, etc., may be used to endow a man with extra power.

Homœopathic (symbolic or mimetic) magic has its basis in the belief that like produces like, a principle that is applied not only to such qualities as appearance and behaviour, but also to complete material objects. An example is shown in the case where leg-shaped flints are used as amulets for cramp or gout.

CHARMS, AMULETS AND TALISMANS

CHARMS, AMULETS, TALISMANS AND MASCOTS are objects which are supposed to possess an intrinsic magical power of conferring benefits, warding off dangers and otherwise influencing the natural course of events, which power is not due to the supposed presence of a spirit, but is regarded as a property of the material or objects themselves. Among such magical objects, those may be classed as talismans which are supposed to transmit qualities to ensure good luck, and those as amulets which are protective and preventive. In some cases the positive and the negative functions are combined. Written amulets or talismans may be classed as charms.

The TWO MOST IMPORTANT CLASSES OF AMULETS OR PROTECTIVE MAGICAL OBJECTS are: (1) Those which ward off evil influences of a supernatural character, and (2) those which protect the wearer against disease. Several stones and metals have their special protective qualities, as have also particular colours. For example, red and blue are both protective against the evil eye. The claws, teeth and whiskers of lions and of other large beasts of prey may be worn to guard against attack by the animal. Amuletic charms of written or printed words from sacred books (especially extracts from the Koran) are much used by Mohammedans to ward off evil supernatural influences. Amulets of a similar character are used by peoples of other religions.

The power of a talisman may be due to the nature or colour of the material, to its shape, or to the character of the object or organism of which it was once a part. It is often impossible to ascertain the origin of the belief in the virtues of the particular kinds of talismans, but in many cases it may be traced to sympathetic magic. Thus, the wearing of boars' tusks by the natives of New Guinea is connected with the belief that the wearers will thereby acquire the ferocity and strength of the animals themselves.

The wearing or keeping of objects "for luck" may be regarded as evidence of a persisting belief in talismans.

CASE 26

EGYPTIAN AMULETS arranged according to the following classes: Similars, Powers, Property, Protection and Gods.

Case 27

Evil Eye amulets. Objects for averting the influence of overlooking, of fascination, etc., arranged geographically, showing examples ranging from Ancient Egypt to Modern London.

Cases 28 and 29

Charms, amulets and talismans. Africa, arranged geographically. Included in this series are skulls inscribed in Arabic, used by a sorcerer in Ashanti, Gold Coast ; also a number of charms and astrological charts, presented by Lieut.-General Sir Robert Baden-Powell, K.C.B., K.C.V.O.

Cases 30 to 37

Amulets and talismans from Japan, China, Tibet, India, Syria, Persia, Arabia, Arctic peoples, North America, West Indies, Mexico, Ecuador, South America, New Guinea, Solomon Islands, etc.

Cases 38 to 41

Charms, amulets, talismans and mascots from the British Isles, including a fine series from London.

Case 42 (Centre of Hall)

Deities and magical objects in gold from Peru, Bolivia and Colombia; gold masks, gold sheaths for poisoned arrows, and gold strigils from Colombia. A bronze pectoral with pendent hands, Roman, *ca.* 100—400 A.D. ; bronze amulets, Roman, *ca.* 100—400 A.D. ; gold, silver, enamel, etc., amulets and talismans; silver and enamel charm cases from various localities.

Case 43 (Centre of Hall)

Korean and Chinese amulets.

Case 44 (Centre of Hall)

Divination bowls from Persia, Arabia, Afghanistan and North Africa ; amulet cases and metal plaques from Tibet ; Miniatures of Indian deities.

Case 45 (Centre of Hall)

Ancient deities of healing, Inca, Peru; Inscribed Tablets from Babylonia and Assyria, *ca.* 3000 B.C.; Seals from Babylonia and Phœnicia; Babylonian physician's seal, *ca.* 2000 B.C.; Model of a sheep's liver, probably used in hepatoscopy, *ca.* 2000 B.C.; Pathological objects in clay from the Maya, Central America; Terra-cotta figures (ancient) from Togoland, West Africa.

Case 46 (Annexe)

Votive Offerings in silver, ivory, bronze, etc., from Rome, Italy, Spain, Turkey and South America.

Case 47 (Annexe)

Ecclesiastical and other amulets from Portugal, Italy, France, Greece, etc. Phylacteries.

Case 48 (Annexe)

Amulets and talismans from Europe.

Case 49 (Annexe)

Lucky shoes, mainly from England.

Case 50

Part of a petrified tree used for the purposes of magic in Ancient Ethiopia.

Case 51

Artificial deformation of the body. A series of objects used or worn, illustrating Deformation of the head, Moko, Tattooing, Cicatrisation, Painting, Deformation of the nose, lips, ears, Glossectomy, Depilation, Circumcision, Sub-incision, Infibulation, Clitorodectomy, Constriction of the waist, neck, arms, legs and feet.

Case 52

Carved ivory, wood and stone objects used for purposes of magic. Pathological and anatomical conditions of sleeping sickness, pregnancy, parturition, adiposity, hernia, etc.

Cases 53 to 55 (Annexe)

A series of figures in costume illustrating the mechanism of the proselytising influence of the Islamic Fulbe of Northern Nigeria. A Fula from near Lake Chad, wearing the characteristic costume of the Nomad herders, a sorcerer in costume from the plains, and a Hausa wearing the characteristic costume of the northern tiller. The sorcerer wears ornaments, amulets, etc., and the Islamic Fula and Hausa wear charms in leather cases suspended on twisted leather cords.

FRIEZE (Annexe)

The Frieze represents scenes of medical, surgical and hygienic interest reproduced from ancient Greek pottery. On the walls, right and left, are pictures representing great epochs in the history of medicine, surgery and chemistry from prehistoric times to the nineteenth century.

Annexe

On the walls are Oil Paintings, Water-Colours, Reproductions of Oriental and Mediæval Manuscripts, etc., of magical and medical interest.

SECTION III

ANATOMY ROOM

CASE 56

OBJECTS AND FIGURES OF ANATOMICAL INTEREST.

CASES 57 AND 58

Wax figures showing the DEVELOPMENT OF THE FŒTUS IN UTERO.

CASE 59

SKULLS AND SKELETONS in ivory, wood and metal. MAORI heads (Moko) in Kauri gum.

CASE 60

ANATOMICAL FIGURES in wax, by Anna Morandi Mazzolini, *ca.* 1760. ANATOMICAL MANNIKINS in ivory, bone and marble, France and Italy, XVIth and XVIIth centuries, illustrating the structure of the internal organs and used to teach students anatomy and midwifery. ANATOMICAL FIGURES, male and female, representing Life and Death. ANATOMICAL MODELS in wax, wood, etc. ; a MUMMIFIED monster ; DIAGNOSTIC MANNIKINS, Chinese and Japanese ; various figures showing forms of disease, etc.

CASE 61

ANATOMICAL FIGURE, covered with human skin, Japanese. Ditto, Chinese, showing the venous system. Probably used for indicating treatment by acupuncture.

CASE 62

WORKS BY WILLIAM HARVEY ; his Diploma, in facsimile, of the University of Padua, 1602.

CASE 63

VARIOUS EDITIONS OF THE WORKS OF VESALIUS ; relics of the house in which anatomy was taught in Vienna, 1510.

Part of the Anatomy Room—Wellcome Historical Medical Museum

CASES 64 AND 65

EARLY BOOKS ON ANATOMY.

CASES 66 AND 67

CRANIA AND IMPLEMENTS illustrating various methods of trephining, prepared by Dr. J. William Parry, M.A., M.D.

CASE 68

MASKS OF JOHN HUNTER AND NAPOLEON. CAST OF THE SKULL OF SIR THOMAS BROWNE; CAST OF THE HAND OF JAMES SYME. Various crania.

CASE 69

PHOTOGRAPHS ILLUSTRATING THE HISTORY OF THE CIRCULATION OF THE BLOOD.

CASE 70

ANATOMICAL FIGURE IN WAX. French, XVIIIth century.

ON THE WALLS

TWELVE ORIGINAL LIFE-SIZE PAINTINGS—STUDIES IN ANATOMY, by Jacques Gautier D'Agoty, 1710–1785; various anatomical drawings by the same author; Oil Paintings, Water-Colours, etc., of anatomical interest by W. Hogarth, Sir Joshua Reynolds, Charles Landseer, Jules A. Joubert, etc.

SECTION IV

VESTIBULE

(Leading to the Hall of Statuary)

CASE 71

PLAQUE. St. Cosmas operating on a man's head. By Leonard Limousin, Limoges, *ca.* 1550.

RELIQUARY containing fragments of the bones of St. Cosmas and St. Damian. Italian, XVIIth century.

GOTHIC AMULET with the representation of the head of St. Eric, *ca.* 1165, Poggio Mirteto, N.E. of Rome.

RELICS OF HENRY II AND RICHARD CŒUR DE LION. Fontevrault (Maine et Loire), France.

ON THE WALLS

OIL PAINTINGS of Medical Interest, including Saints Cosmas and Damian, Italian School, XVth century.

PART OF THE HALL OF STATUARY—WELLCOME HISTORICAL MEDICAL MUSEUM

SECTION V

HALL OF STATUARY

Prominent features in this Hall are STATUES OF THE DEITIES ASSOCIATED WITH THE HEALING ART IN ANCIENT TIMES.

At the North end are grouped those of early civilisations, including the gods of the Sumerians, proto-historic peoples of the Euphrates Valley, Babylonians and Assyrians. Prominent among these is Ea or Oannes, the earliest known deity connected with medicine, who, according to tradition, instructed the proto-historic peoples of the Euphrates Valley in science and learning about 5000 B.C.

On the left are Egyptian deities associated with healing, and on the right, representations of the fathers of medicine of India and China, together with the Aztec medical genius, Ixtlilton.

At the South end are the deities of the early and classic periods of Hellenic culture.

A REPLICA OF THE BANNER OF THE COMPANY OF BARBER-SURGEONS OF LONDON, which was incorporated in 1461, is in front of the gallery balustrade on the North side in the centre; and on either side are the original barge flags of the Barber-Surgeons' Company, formerly used in State processions on the Thames.

A REPLICA OF THE BANNER OF THE SOCIETY OF APOTHECARIES OF LONDON, which was incorporated in 1617, is in front of the South

end of the Gallery in the centre. On either side are two of the Society of Apothecaries' barge streamers formerly used in State pageants on the river.

In the Egyptian alcove on the left are reproductions in facsimile of the earliest records of medicine, dating from *ca.* 2700 B.C., including the medical papyri of Kahun, Ebers, Hearst and those of London and Berlin. Close by are also early representations of deities, together with alabaster unguentaria and stone mortars used for medical purposes in ancient Egypt.

In the Oriental alcove on the right will be found figures of deities associated with healing in the Far East, and, on the adjacent walls, representations of the practice of medicine in ancient Greece and Rome.

Instruments employed in surgery and dentistry from the earliest times, will be found in the cases under the gallery and in the centre of the hall.

So far as possible, the scheme is evolutionary, and the series is so arranged that the history of each instrument may be studied separately. The complete evolution of some of the more important instruments is shown in the various cases.

Case 72

A series illustrating the development of magic and medicine in China, Tibet and India.

Case 73

Instruments from Asia; included are replicas of most of the instruments attributed to Susruta. It will be noted that there are several prototypes of modern surgical instruments included in this series. Ancient set of Barber-Surgeon's instruments inlaid with gold.

Case 74

Primitive native surgical instruments from Africa, America, Australia and Oceania.

Case 75

Egyptian, Roman and Greek surgical instruments.

Case 76

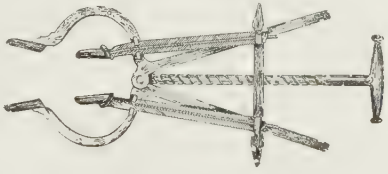
Greek and Roman surgical instruments. A series of Roman instruments of the first century, A.D., is shown in comparison with those of the present day.

Case 77

Greek, Roman and Egyptian instruments, etc. Objects found in the grave of a Græco-Roman at Panderma, on the Bosphorus. A replica of the medicine chest of Queen Mentu-hetep (*ca.* 2200 B.C.), found at Thebes. Bronze razors. A collection of oils (copies) used by the Romans, recorded by Pedanios Dioscurides of Anazarbos.

Cases 78 to 83

Evolution of the obstetrical forceps. Vectes, whalebone fillets, funis replacers, dilators, perforators, craniotomy forceps and cranioclasts, cephalotribes, decapitators, embryotomes, the evolution of the blunt



Ancient Roman Vaginal Dilator

hook, pelvimeters, trocars, cannulæ, ovariotomy clamps, écraseurs, metrotomes, uterine dilators; evolution of the speculum, stems and pessaries, vaginal and uterine depressors, sounds, probes, gynæcological scissors, curettes, scarifiers, caustic holders, uterine and ovum forceps, urethral instruments, obstetrical instruments, polypus instruments, vesicovaginal instruments, fistula instruments, rectal instruments, etc.

Case 84 (Centre of Hall)

Evolution of the cupping vessel. Evolution of the lancet. Scarifiers, artificial leeches, cupping sets, sets of lancets, lancet cases.

Case 85 (Centre of Hall)

Evolution of trephining instruments. Sets of trephining instruments, models, etc.

Case 86 (Centre of Hall)

Evolution of amputation instruments. Knives, saws, etc.

Amputation Saw. 16th Century

Case 87 (Centre of Hall)

Forceps and tweezers.

Case 88 (Centre of Hall)

Lithotomy outfits, lithotomy instruments, trocars, cannulæ, lithotrites, catheters, écraseurs, etc.

Cases 89 and 90
(South-East Corner)

Græco-Roman Votive Offerings. In this series there are numerous other votive offerings, including a stone tablet in relief representing two plaits of hair dedicated to Poseidon by Philombroses and Aphthonetos, sons of Deionomachos, found at Pynx near Athens ; a relief in stone of an eye is dedicated to Zeus ; a stone relief of a leg found at a shrine of Asklepios and Hygieia by Tyche ; also a series of small figures, statuettes of anatomical parts, votive vessels, figures of animals, birds, fruits, etc.

Roman votive offering in terra-cotta

Cases 91 and 92

Greek and Roman objects connected with medicine and surgery. A representative collection.

Cases 93 and 94

Greek, Roman, Phœnician and Syrian glass vessels.

Case 95

Inros (medicine cases), Japan.

Case 96

Netsukes. Japan (medical and allied subjects).

Case 97

The Kahun Papyrus, in facsimile. The earliest known Egyptian papyrus on medicine, *ca.* 2700 B.C. The Papyrus Ebers, in facsimile, *ca.* 1552 B.C. The Hearst Medical Papyrus, in facsimile, *ca.* 1500 B.C. The Berlin Medical Papyrus, in facsimile, *ca.* 1400 B.C. Two original Papyri discovered in a temple near Thebes.

Case 98

Egyptian deities of healing, including a fine series of figures of I-em-hetep, etc.

Cases 99 to 103

Evolution of Dental Appliances. A series of instruments illustrating the history of dentistry and dental prothesis. The evolution of the dental forceps. The evolution of the toothbrush. A series from Gebel Moya, Anglo-Egyptian Sudan, showing diseased condition of the teeth and alveoli. A series connected with the folk-lore of teeth. A set of French Court Dentist's Instruments.

Case 104

Replica of the Great Golden Mace of the American College of Surgeons, presented by the consulting surgeons of the British Army in memory of mutual work and good fellowship in the Great War, 1914—1918, October 11th, 1920.

This mace of traditional form was designed to symbolise the close union between British and American surgery and the ties which unite Great Britain to Canada and the United States of America.

The crown-shaped finial is formed of six buttresses upholding the "sacred flame of science" issuing from a mortar in the form of one discovered among the ruins of Salonika after the great fire. The cresting represents American eagles and maple leaves intertwined with the serpents of Æsculapius. The body or head is divided into six panels by the winged caduceus, the badge of the United States Army Medical Corps.

The panels set forth the following: The arms of the United States of America. The arms of the Dominion of Canada. The arms of the Royal College of Surgeons of England. The badge of the Royal Army Medical Corps. The arms of John Hunter and Lord Lister. A cartouche, inscribed "Philip Syng, Physick, 1768–1837, Father of American Surgery."

Beneath, the waters of the ocean, which both unite and separate America and the Mother Country, are represented by embossed wavy lines. On the upper knop are representations of American and Canadian seed-pods. The staff bears the emblems of the United Kingdom, the rose, the thistle, the shamrock and the leek—entwined with ribbed scrolls bearing the donors' names. The bottom knop is fluted with leaves of the woad plant *(Isatis tinctoria)*.

The original Mace, and this exact replica, were designed, hand-wrought and finished by Omar Ramsden.

STATUARY

Apollo, the earliest known Greek deity associated with medicine.

Asklepios, Greek deity of medicine.

Cheiron, the Centaur, Father of Botany and Pharmacy.

Ixtlilton ("Little Dark Brother"), ancient Mexican (Aztec) deity of healing.

Ancient Mexican (Aztec) figures representing Life and Death.

Shen-Nung, founder of the healing art of the Chinese.

Dhanwantari, "The health-bestowing one," Vedic father of medicine, and "Physician of the Gods."

Ea, earliest known proto-historic deity associated with healing amongst the peoples of the Euphrates Valley, *ca.* 5000 B.C.

Gula, an Assyrian goddess of healing, *ca.* 3000 B.C.

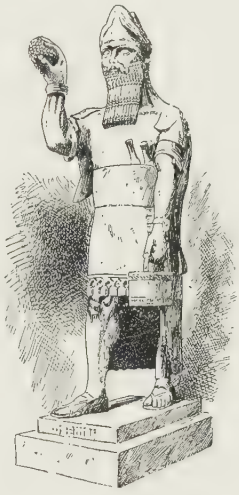
Marduk, the earliest Babylonian deity reverenced as the tutelary god of healing.

Adapa, Sumerian genius of healing, *ca.* 3000 B.C.

Babylonian Demons of Disease.

Thoth, one of the earliest known Egyptian deities associated with medicine.

I-em-hetep, "He who cometh in peace," an early Egyptian deity of medicine and healing, and son of Ptah, *ca.* 2850 B.C.



EA

Ptah, chief god of Memphis, and the most ancient of the Egyptian deities connected with the healing art.

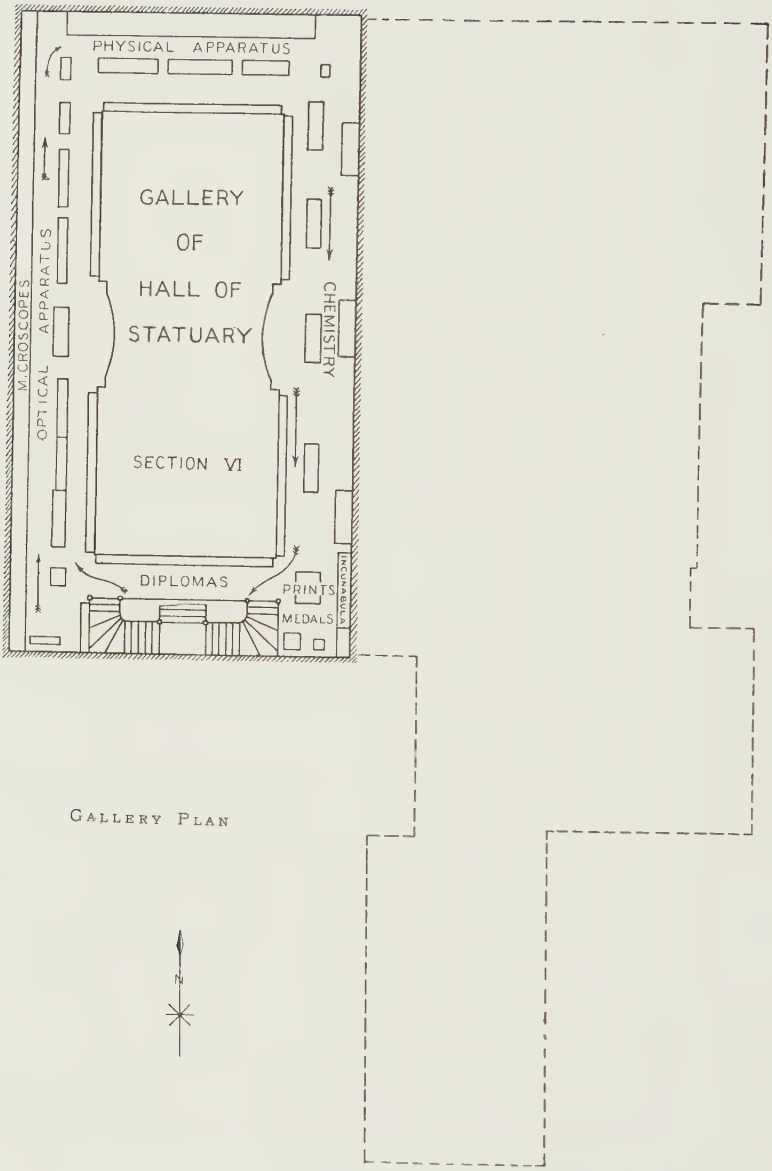
Auta, a chief physician, 1350–1205 B.C.

On the Walls

Stelæ and Pictures of Medical and Surgical Interest.

Staircase to Gallery

Oil Paintings of Medical Interest.



GALLERY PLAN

NOTE.—During the Lister Centenary Exhibition a collection of Lister Manuscripts, Letters, Drawings, etc., will be shown in the Gallery of the Hall of Statuary (Section VI).

SECTION VI

GALLERY

SECTION OF OPTICS, CHEMISTRY, ETC.

WEST SIDE

CASES 105 TO 138

EVOLUTION AND DEVELOPMENT OF THE MICROSCOPE. Set of portable microscopes made by Edward Culpepper. Original screw barrel microscopes, *ca.* 1710. Botanical, aquatic and pocket microscopes.

Compound microscopes from the earliest model by Janssen, *ca.* 1600 to the seventeenth century. Cherubin d'Orlean's first binocular, early English compound with rotating multiple disc forming the stage, focussed by a screw, 1702. Model of Hook's compound, with movable stage, ball and socket adjustment, 1665. Model of Janssen's compound Keplerian form, *ca.* 1600—1610. Micrographia Nova, J. Francisco Griendelio, Nuremberg, 1687. Compound tripod forms from the beginning of the eighteenth century.

Culpepper's three pillar, showing the original model and its development up to 1830.

Various forms of boxfoot microscopes, by Continental makers, *ca.* 1700—1800. Included in this series is a microscope formerly the property of Pope Benedict XIV.

Cuff's double-constructed microscopes, *ca.* 1742. Arranged to show the various modifications and additions by other makers to about 1825.

Continental microscopes with various unusual adjustments.

Microscopes made by the toy makers of Nuremberg, *ca.* 1750—1770.

Group of late eighteenth century microscopes showing various unusual adjustments.

Smaller uncorrected compound microscopes in original cases.

Various uncorrected compound microscopes. Latter half of the eighteenth and early part of the nineteenth centuries.

Various forms of dissecting microscopes. Early nineteenth century.

Various types of portable microscopes. Nineteenth century.

Group of demonstration and hospital microscopes.

Group showing the development of the Continental model, including some of the cheaper forms of French microscopes, *ca.* 1770—1870.

Early achromatic types, various uncorrected and compound microscopes. Late eighteenth and early nineteenth centuries.

Compound achromatic types by Pritchard, Ross, Smith, Beck and other makers, *ca.* 1830—1880.

Group of microscopes constructed for special purposes.

Compound achromatic microscopes illustrating the principle of binocular vision, etc. Nineteenth century. Microscopes with more than one body, and others where the image is diverted from the optic axis by means of prisms.

Group of solar, lucernal and other projection microscopes.

Case 139

Pocket microscopes, including models of early types.

Case 140

Achromatic compound microscopes of elaborate construction for obtaining oblique light, 1880 to present day. Group of museum microscopes. Models of the eye and various ophthalmic instruments.

Cases 141 to 147

The development of the spectacle.

Case 148

Lorgnettes, spy and quizzing glasses, folding hand spectacles, opera glasses, etc., of the eighteenth and nineteenth centuries.

Case 149

Oriental spectacles, goggles, snow and sun goggles, eighteenth and nineteenth centuries.

Evolution of Optical Appliances, etc.

Case 150

Ophthalmoscopes, optometers, eye-testers, etc.

Case 151

Ophthalmic instruments.

Case 152

Artificial eyes, anatomical models of the eye in metal, crystal, ivory, wood, etc. Seventeenth to nineteenth centuries.

Case 153

Roman Oculist's stamps, original and replicas. Eye-baths, sixteenth to eighteenth centuries.

ON BALUSTRADE

Case 154

Illustration showing the evolution of the anatomy of the eye.

NORTH END

Case 155

Early physical and electrical instruments, including the original apparatus employed by Galvani in the discovery of animal magnetism in 1792.

Case 156

The early history of photography.

Case 157

Development of lenses and colour vision ; Instruments invented by Lord Rayleigh, O.M. Presented by Lord Rayleigh.

Case 158

Medals, plaques, etc., relating to physics, electricity and chemistry.

Cases 159 to 163 (On Balustrade)

Aural instruments and ear trumpets. Anatomical model of the ear.

East Gallery

Attention is directed to the tablets on the pillars on the right and left sides of the gallery, where an endeavour has been made to set out the various historical periods, together with the names of some of the most prominent pioneers in Chemistry, from ancient times.

Cases 164 to 166

Chemicals and drugs used from antiquity to the nineteenth century.

Case 167

Instruments invented by Lord Kelvin, including the quadrant.

Case 168

Early chemical apparatus, by John Dalton. Models.

Case 169

Apparatus and pneumatic trough used by Joseph Priestley. Models.

Case 170

Chemical apparatus used by Daubeny, 1822—1854.

Cases 171 to 177 (On Balustrade)

Books and manuscripts relating to chemistry.

Case 178 (On Balustrade)

Manuscripts and documents by Lord Kelvin.

SOUTH END

Cases 179 to 186

Diplomas, etc.

Incunabula, Medals, Book-plates, Prints, Engravings and Autographs are to be seen in cases at the south-east and south-west corners.

On the Walls

Oil Paintings, Water-Colours, Engravings, etc., relating to the various sections in the Gallery.

General View of Portrait Gallery—Wellcome Historical Medical Museum

SECTION VII

PORTRAIT GALLERY

An important section is being developed in this Gallery, to illustrate THE LIFE-WORK OF EMINENT PHYSICIANS AND SURGEONS. Portraits of men renowned for their work in various branches of medical science are hung in association with personal relics, instruments which they invented, etc. It is hoped that this section will develop into an extensive series showing the developments of medicine and surgery in modern times. As the years pass by, the work of the men shown will thus acquire its true historical perspective.

THE FRIEZE represents incised Sculptured Reliefs in the Birth-House at Luxor, illustrating the birth of Amenophis III, 1450 B.C.

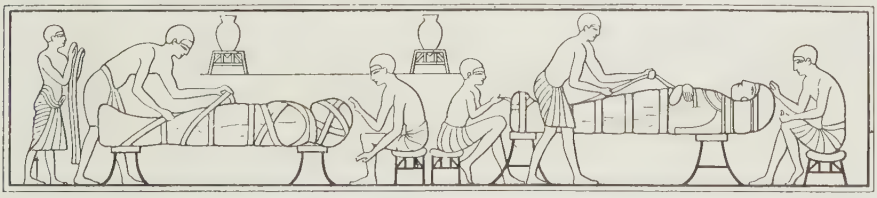
WEST SIDE

CASE 187

THE HISTORY OF PERFUMES AND AROMATIC SUBSTANCES, WHICH, IN ANCIENT TIMES, PLAYED AN IMPORTANT PART IN PREVENTIVE MEDICINE. Pomanders, etc.

CASE 188

Objects used in the PREPARATION OF UNGUENTS, SALVES, etc., CONTAINERS FOR COSMETICS, ANTIMONY, GALENA, etc., TOILET SETS, PERFUME CONTAINERS.



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South Wall Portrait Gallery—Wellcome Historical Medical Museum

Case 189

Strigils, Toilet sets, massage implements, articles of toilet, etc.

Case 190

Oral and Nasal instruments.

Case 191

Hypodermic syringes, pulsometers, cauteries, thermometers.

Case 192

The history of circumcision, pessaries and urology.

Case 193

The evolution of the stethoscope.

Cases 194 and 195

Dr. Jenner's medicine chests.

SOUTH SIDE

Case 196

Jenner Relics. Edward Jenner, M.D., LL.D., F.R.S., 1749—1823.

In this case are various personal relics of Dr. Edward Jenner, including his cane, seal, snuff-box, pulsometers, some of the original vaccine points cut from quills, which were used by him, and a collection of lancets and scarifiers used in his experiments; original drawings of pustules, etc.

The collection of original Jenner documents includes the first MS. of his "Inquiry," dated 1797; his pocket prescription book and patients' visiting book; the letter written by him to Mrs. Black, informing her that Parliament had granted him the sum of £20,000; the first edition of the "Inquiry," printed in 1798, and a diary written by his father from 1729 to 1751.

Part of the East Wall Portrait Gallery—Wellcome Historical Medical Museum

Here also is an original draft of Jenner's will; a copy of his work on the Vaccination Pustule, presented in 1806, and inscribed to "Mrs. Kingscote" in Jenner's holograph; copies of his works on "Variolus Contagion," inscribed "To Dr. Baron," his biographer, together with two miniatures on ivory of vaccine pustules from the seventh to the ninth day, painted by a French miniature painter.

Dr. Edward Jenner's Medicine Chest

The famous bronze statue of Dr. Jenner vaccinating a child, by Giulio Monteverde, is near by, and against the wall JENNER'S FAVOURITE CHAIR, in which he was seated when taken with his fatal seizure on January 25th, 1823; and also his medicine chests.

On the wall above the collection are several CONTEMPORARY PORTRAITS OF JENNER and his family; and on the balustrade at the head of the adjacent stairs are CERTIFICATES, FREEDOMS OF CITIES, etc., presented to him.

CASE 197

HENRY HILL HICKMAN, 1800—1829. Discoveries of the application of the principles of anæsthesia by inhalation for surgical operations, which he proved by actual experiments on animals. Personal relics, also VARIOUS TYPES OF INHALERS.

Cases 198 to 201

Instruments and relics of the late Sir Anderson Critchett, Bt., K.C.V.O., Sir Lauder Brunton, Bt., F.R.C.P., F.R.S., Sir Frederick Treves, K.C.B., G.C.V.O., Sir Rickman Godlee, Bt., K.C.V.O., Sir James Paget, Bt., F.R.C.S., Richard Quain, F.R.C.S., John Ward Cousins, M.D., F.R.C.S., Sir Patrick Manson, G.C.M.G., F.R.S., Sir Norman Moore, M.D., F.R.C.P., Dr. W. Mansell MacCulloch, F.G.S., Dr. Henry Barnes, Sir Henry Morris, Bt., F.R.C.S., Dr. Laidlaw Purves, Sir James Y. Simpson, Sir Frederick Mott, K.B.E., F.R.S., Sir James MacGrigor, M.D., Sir James Cantlie, K.B.E., F.R.C.S. Sir James Mackenzie, Kt., M.D., LL.D., F.R.S., F.R.C.P., Dame Louisa Aldrich-Blake, M.S. (London), M.D., Mr. John Howard Mummery, C.B.E., F.R.C.S., L.D.S., Sir George Buchanan, M.D., F.R.C.P., F.R.S., Sir Felix Semon, K.C.V.O., M.D., Sir Benjamin Collins Brodie, D.C.L., F.R.C.S., F.R.S., Sir John Williams, Bt., G.C.V.O., M.D., F.R.C.P., Dr. J. George Adami, M.A., LL.D., F.R.S., Mr. Phineas Simon Abraham, F.R.C.S.; and historical relics of medical and surgical interest. Surgical instruments in cases of the late Richard Quain, F.R.C.S., President of the Royal College of Surgeons, 1868. The drawers contain a large number of instruments he frequently used.

Sir James Paget's Stethoscope

Case 202

Instruments and personal relics illustrating the life-work of the late Sir Rickman Godlee, Bt., K.C.V.O. Presented by Lady Godlee.

Case 203

Historical medicine chests and personal relics of the Duke of Wellington, Lord Nelson, George Washington, William Hunter, Dr. William Beatty and Dr. Leonard Gillespie, R.N.

Case 204

Lord Nelson's medicine chest used on board "The Victory."

Case 205

Objets d'art illustrating points of medical and surgical interest.

CASE 206

POISON CUPS, RHINOCEROS HORN LIBATION CUPS, ASSAY CUPS, etc.

CASE 207

SILVER PAP BOATS, MEDICINE SPOONS, NIPPLE SHIELDS, MEDICINE GLASSES, CUPS, CARVED IVORY MORTARS, etc. Various objects in silver, ivory, glass, majolica, etc., connected with medicine and surgery.

CASE 208

RINGS, including cramp rings and others associated with the healing art.

CASE 209

STONES OF HEALING, GOA AND BEZOAR STONES, intaglios, gems, seals, etc.

CASE 210

COINS AND DOCUMENTS ILLUSTRATING HEALING BY ROYAL TOUCH. LOADSTONES, including one used by Queen Anne.

CASES 211 TO 213

EARLY MANUSCRIPTS.

CASES 214 AND 215

MEDALS AND PLAQUETTES connected with Jenner, Koch, Pasteur. MEDALS OF MEDICAL INTEREST from the Blanchard Collection.

CASE 216

TABLE AND CHAIR EN SUITE WHICH BELONGED TO THE LATE SIR JAMES PAGET, BT., F.R.C.S. Presented by Mrs. Paget.

CASE 217

DOCTORS' WALKING STICKS AND CANES.

CASE 218

MINIATURES OF DISTINGUISHED MEN.

CASE 219

DR. R. QUAIN'S INSTRUMENT CASE.

ON THE WALL

PORTRAITS OF EMINENT PHYSICIANS AND SURGEONS throughout the ages.

SECTION VIII

ALCHEMY ROOM

This Section has been arranged to illustrate the HISTORY OF ALCHEMY AND IATROCHEMISTRY by means of pictures, drawings, original manuscripts, reproductions from ancient manuscripts, documents, models and ancient apparatus employed by alchemists in making discoveries during the past ages, which have been stepping-stones and have helped to raise the Science of Chemistry to the position it holds to-day.

Some of the long scrolls are the work of George Ripley, an alchemist and Canon of Bridlington, who practised alchemy during the latter part of the fifteenth century. They depict various processes in connection with his search for the " Philosopher's Stone."

The curious water-colour drawings on the walls are reproductions from manuscripts on alchemy from the thirteenth and fourteenth centuries, and depict symbolically various chemical processes and operations, such as distillation, sublimation, calcination, digestion, extraction and precipitation.

Models of alchemists' hearths come next, on which are stills and other apparatus of iron, pewter and stoneware. At the back of the hearth on the east wall, in curious-shaped bottles, are specimens of the elements and their symbols known in the fifteenth century.

Right and left are models of large pieces of apparatus which were to be found in every laboratory of importance from the sixteenth to the eighteenth century. The first is an " aludel " or " sublimatory," used for subliming sulphur or mercury. Near it is a still with a curious zigzag

condenser called the "Serpent," used for distilling the "Water of Life" (alcohol) and the "Athanor," a furnace used when prolonged heat was necessary. The fuel was placed in a reservoir above the fire, which it fed automatically.

A selection of the ancient symbols used by alchemists to represent the planets, metals, elements and other substances are reproduced on the frieze, a key to which will be found at the base of the pillars. On a shelf below, there are arranged and named a collection of original ancient glass apparatus employed by alchemists, consisting of matrasses, globe-receivers, cucurbits, alembics, still-heads and retorts.

On the east wall facing the entrance is a picture of Hermes Trismegistus, or the "Thrice Great," the ancient Egyptian mythological personage who is supposed to have originated the Science of Chemistry. The Greeks adopted the Egyptian god "Thoth" in the Pantheon under the name of Hermes, who, according to early historians, wrote forty-two books on science. The latest probably dates from 600 B.C., but fragments only have come down to us in the Papyrus Ebers.

On the wall on the north side is a large painting representing Dr. John Dee, the astrologer, demonstrating before Queen Elizabeth and her Court at his house at Mortlake.

CASE 220

Original ancient BRONZE EVAPORATING VESSELS, Roman; GLASS ALEMBICS, etc.; BRONZE ALCHEMICAL APPARATUS, Egyptian; FURNACES.

CASE 221

RETORTS, CRUCIBLES, VARIOUS VESSELS.

CASE 222

POTTERY COILS, CRUCIBLES, STILLS, ETC.

CASE 223

GLASS ALEMBICS, etc., GRADUATED FLASKS, etc.

Case 224

Divination crystals, mirrors, divining boards, sticks, magic charts, etc.

Case 225

Astrological material; Signs of the Zodiac, from various parts of the world.

Case 226

Objects illustrating the widespread belief in witchcraft.

Case 227

The development of phrenology.

Case 228

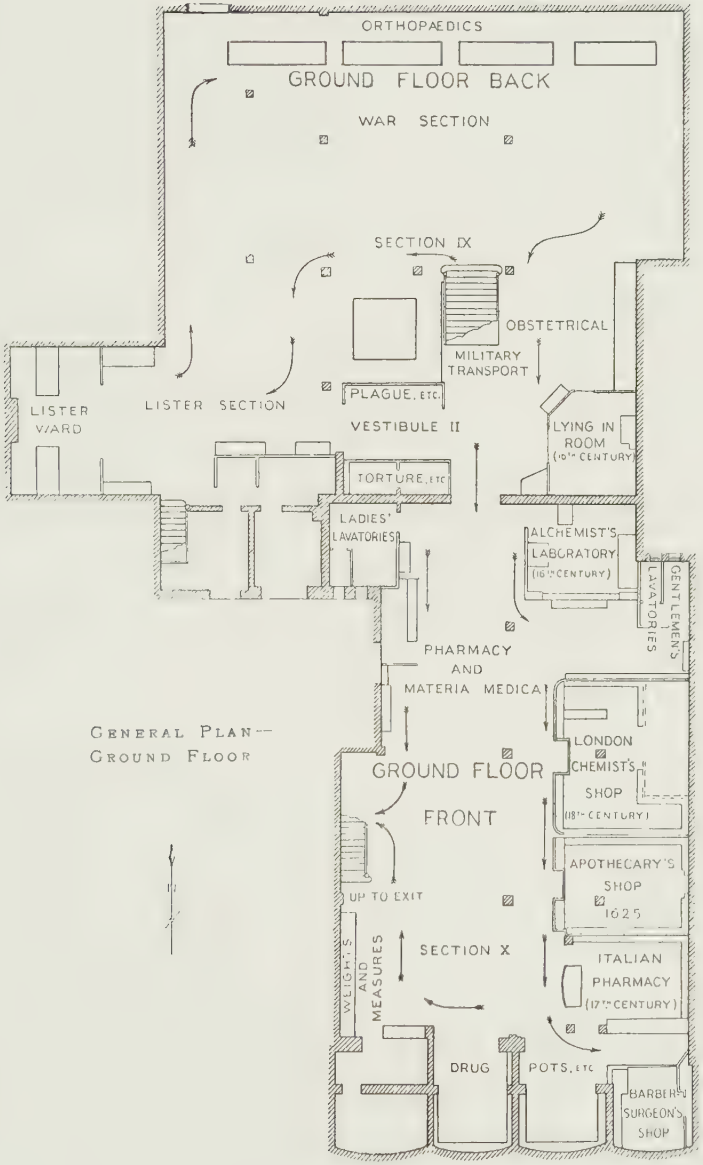
Manuscripts, etc., dealing with alchemy.

Case 229

The origin of the search for the elixir of life, especially dealing with gold.

On the Walls

Numerous Oil Paintings, Water Colours, etc., of Alchemical and Astrological Interest.



GENERAL PLAN—
GROUND FLOOR

PART OF THE WAR SECTION—WELLCOME HISTORICAL MEDICAL MUSEUM

SECTION IX

WAR SECTION

(GROUND FLOOR—BACK)

In this room an official collection of NAVAL AND MILITARY MEDICAL MATERIAL, mainly of the Great War, 1914—1918, is shown. Medical and surgical supplies, models, statuary and pictures form the bulk of the collection.

A group of mediæval instruments, appliances and pictures illustrates the development of medical and surgical procedure.

THE LISTER COLLECTION is installed in the south-west corner, and it is grouped in association with the famous Ward of which an original section is shown, and in which Lord Lister applied his principles of antiseptic surgery.

CASES 230 TO 232

ARTIFICIAL LEG constructed of large rectangular slabs of limestone cemented together, found in an undisturbed tomb, Capua, 300 B.C., Roman; Anglo-Saxon SURGICAL APPLIANCE. The ARM BONE OF A FEMALE excavated by Dr. Stevens at Reading in 1890. Round the bone and near the diseased part were found two copper plates, the inside of one being padded with leaves; on the outside are fragments of fabric probably used to keep the plates in position. IRON SURGICAL BOOT, sixteenth century; ARTIFICIAL MECHANICAL HAND, early seventeenth century; SURGICAL APPLIANCES

Part of the War Section—Wellcome Historical Medical Museum

FOR STRAIGHTENING THE HAND, seventeenth century; ARTIFICIAL ARTICULATED ARM AND HAND, said to have been used by Gotz von Berlichengen, *ca.* 1480; ARTIFICIAL LEGS, HANDS AND ARMS, various dates.

CASES 233 TO 237

ORTHOPŒDIC APPLIANCES; LEG AND SPINE SUPPORTS; WRYNECK APPARATUS, etc.; FRACTURE APPLIANCES; SPLINTS, RESTS, EXTENSIONS, of various dates.

CASES 238 AND 239

ORTHOPŒDIC APPLIANCES, TRUSSES, BELTS.

CASES 240 AND 241

THE EVOLUTION OF THE GAS-MASK; SMOKE HELMETS.

CASES 242 AND 243

GAS, OXYGEN, ETC., CONTAINERS AND APPARATUS used in the Great War, 1914–1918.

CASES 244 AND 245

FRACTURE APPLIANCES AND SPLINTS used in the Army, nineteenth century.

CASE 246

BRITISH, FRENCH AND GERMAN WAR RELICS.

CASES 247 AND 248

THE DEVELOPMENT OF THE TOURNIQUET.

CASE 249

THE DEVELOPMENT OF THE SPLINT.

CASES 250 TO 254

MEDICAL EQUIPMENT AND RELICS used mainly in the Great War, 1914—1918. FIELD AMBULANCE AND HOSPITAL OUTFITS, etc. INSTRUMENT CASES, etc., Turkish, German, French and British.

CASE 255

PRISONERS OF WAR CAMP EMERGENCY CURRENCY.

Part of the War Section—Wellcome Historical Medical Museum

CASE 256

CHARMS AND AMULETS carried by soldiers.

CASE 257

ORTHOPŒDIC APPLIANCES used in the Great War, British and Italian.

CASE 258

CLASSIFIED WEAPONS OF OFFENCE.

CASE 259

RED CROSS AND AMBULANCE DECORATIONS, medals and badges.

CASE 260

WAR AND PERSONAL RELICS OF THE LATE SIR JOHN FURLEY, founder of the British Red Cross Society. Presented by Lady Furley.

CASE 261

RELICS OF THE FRANCO-PRUSSIAN WAR, collected by Albert Lee Ward, presented by Dame Genevieve Ward.

CASE 262

GERMAN WATER-BOTTLES; TURKISH FLAG, etc.

CASE 263

POCKET INSTRUMENT CASES, eighteenth and nineteenth centuries.

CASE 264

FORFEX EXCISIORIA, described by Guy de Chauliac, *ca.* 1300, for the extraction of an arrow-head; BULLET EXTRACTORS AND BULLET EXTRACTOR FORCEPS, sixteenth to nineteenth centuries.

CASE 265

IMPROVISED SURGICAL INSTRUMENTS.

CASE 266

ELECTRIC BULLET DETECTOR; various SURGICAL INSTRUMENTS.

Case 267

Apparatus for reviving the asphyxiated.

Case 268

Post-Mortem and dissecting instruments.

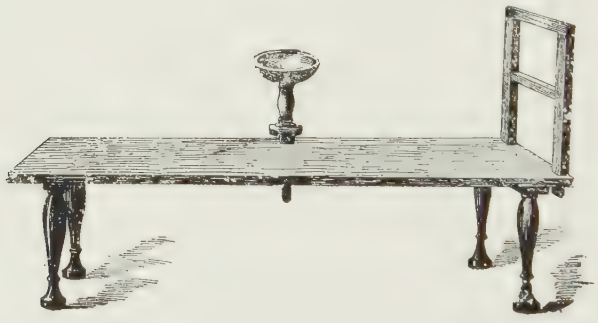
Case 269

Luxation Table. Used from classical times for reducing fractures and dislocations.

The Luxation Table, or scamnum, was first described by Hippocrates, *ca.* 400 B.C., and is represented in a Greek MS. by Nicetas, tenth century. Described and depicted by Guido Guidi, the famous Florentine Surgeon, in 1544. It is believed to be one of the models that he records he designed and had made about that period.

Ladder described by Hippocrates (Model), employed by Greek surgeons for reducing dislocated limbs.

Operating Tables. Model, sixteenth century, as described by Ambroise Paré.



An Operating Table of the 16th Century

Model used by Liston when performing the first operation in which ether was used as an anæsthetic in this country, December 21, 1846.

Sedan Chair used as an ambulance to convey patients to the San Juan de Dios Hospital, Bogota, Colombia, South America. In actual use until 1914.

Parturition Chairs and Stools. Parturition stool, fourteenth century. (Model).

Parturition stool, used in ancient Greece, and described by Savonarola. (Model).

Parturition chair, as described by Roeslin, 1532. (Model).

Parturition chair, as described by Ryff, 1554. (Model).

Parturition Chair,
early 18th Century

Parturition chair, seventeenth century. (Model).

Parturition chair, Swiss, eighteenth century.

Parturition chair, Sicilian, eighteenth century. This chair was believed to possess miraculous powers, and was known as " the Miraculous Chair

A Lying-In Room, XVIth Century—Wellcome Historical Medical Museum

of Palermo." It was in the possession of a famous family of midwives for three generations, and is estimated to have been used in two thousand cases of delivery. On the back is a painting of Christ.

Parturition chair, seventeenth century. (Model). Described by Heister, 1770.

Parturition chair from Aleppo.

Parturition chair, German, seventeenth century.

Parturition chair, Portuguese, eighteenth century.

Parturition chairs, called "Sandigan" and "Serimbalan," used by native tribes in the Province of Samar, Philippine Islands.

Parturition chair from Lorraine, late seventeenth century.

TRANSPORT OF THE WOUNDED. Stretchers, Waterloo to the Great War, 1914—1918.

CASE 270

German and Turkish DRESSING-CASES AND POUCHES.

CASE 271

MODELS OF EXTEMPORISED STRETCHERS, made by the Japanese for carrying the wounded in the Russo-Japanese War. Naval stretchers, hammocks, cots, cacolets, etc.

CASES 272 TO 275

THE EVOLUTION OF THE ENEMA.

CASE 276

CARVED WOODEN BOWL USED BY MIDWIVES. Maori, New Zealand.

CASE 277

CHASTITY GIRDLES.

CASE 278

PHALLIC OBJECTS.

CASE 279

VOTIVE OFFERING, Virgin and Child.

Part of the Lister Ward—Wellcome Historical Medical Museum

MODELS

Dressing Station, "No. 1 Harley Street," Hell Fire Corner, Bethune, France; Dressing Station of the Canadian R.A.M.C. in the Front Line at Vimy Ridge.

A Lying-in Room of the sixteenth century. (Reconstructed from a miniature of the period).

Case 280

François Rabelais, M.D., in his robes as Doctor of Medicine of Montpellier University, 1537. Copied from the original robes still preserved in the University of Montpellier.

Case 281

China group, Motherhood.

Cases 282 and 283

Instruments to restrain the Insane; torture appliances.

Case 284 (Vestibule)

Relics from the Leper Hospital of St. Nicholas, Harbledown, Kent, fifteenth century. Relics of the Plague. Model of physicians' dress worn during the plague.

LISTER WARD

A section of the original ward in the Royal Infirmary, Glasgow, reconstructed with the actual furniture and equipment from the building now demolished. It was in this ward in 1865 that Lister carried out his researches and first put into practice his antiseptic principles in the treatment of wounds.

Portraits, Relics, Documents, Apparatus connected with the work of the late Lord Lister.

Case 285

Apparatus used by Lord Lister in his experiments on Lactic Fermentation. Portable Experiment Case, etc., etc.

Case 286

Books, etc., that belonged to J. J. Lister.

Case 287

Lister Sprays. Lister's Cap and Gown.

(Lent by and belonging to the Glasgow Lister Memorial Committee.)

Case 288

Instruments used by Lister.

Case 289

Papers by Lord Lister.

On the Walls

Pictures relating to War, Medical Services, Surgery, etc.

A London Chemist's Shop, XVIIIth Century
Wellcome Historical Medical Museum

An Italian Pharmacy, XVIth Century—Wellcome Historical Medical Museum

SECTION X

PHARMACEUTICAL SECTION

(GROUND FLOOR—FRONT)

In the front part of the ground floor most of the objects, appliances, implements, apparatus, books and documents relating to the HISTORY OF PHARMACY have been arranged.

The visitor is invited to inspect the shops round the sides first of all, as the lighting is arranged to give a street effect.

1. AN ENGLISH ALCHEMICAL MANUFACTURING LABORATORY OF THE SIXTEENTH CENTURY.

This reconstruction of the laboratory of an alchemist of the sixteenth century is one such as Paracelsus might have worked in. Mysterious, gloomy and dark, with strange animals and fishes depending from the roof, casting fantastic and eerie shadows on the old stone walls, it offers a glimpse of the surroundings of the worker in Science some four centuries ago.

Most of the equipment in this laboratory was in use in England until quite recently for the production of medicaments.

2. A LONDON CHEMIST'S SHOP, EIGHTEENTH CENTURY.

The shop front is the original of the pharmacy established in 1798 by John Bell, father of Jacob Bell, founder of the Pharmaceutical Society. The vases and ewers in the interior are of old Davenport ware, the ointment jars of Staffordshire stoneware, and the essence bottles of early red Bohemian

An Apothecary's Shop, 1625—Wellcome Historical Medical Museum

glass. The laboratory in the rear contains the original ancient fittings of a pharmaceutical laboratory of the eighteenth century that once stood in Russell Street, Covent Garden, London.

The preliminary discussions regarding the formation of the Pharmaceutical Society of Great Britain took place in this building.

3. Apothecary's Shop. 1625.

4. Italian Pharmacy, sixteenth century.

5. A Barber-Surgeon's Shop, sixteenth century. Reconstructed from a picture of the period.

6. Native Model of a Chinese Drug Shop.

7. An original Turkish Drug Shop of the seventeenth century, transferred from the Old Drug Bazaar in Constantinople, and reconstructed in the Museum.

Cases 290 to 292

Copies of Hortus Siccus and early herbals ; Terra Sigillata and the history of this ancient Medicament from 100 B.C., together with specimens of the "Sealed-Earth" of various kinds used in different parts of Europe; Theriaca ; rare and curious drugs, including Bezoar stones, eye-stones, Chinese ginseng root, poisoned sucking-stones, and drugs used by native witch-doctors ; curious specimens of Jalap having a natural resemblance to birds, animals and reptiles. Specimens of drugs showing adulteration. Ancient Egyptian drugs excavated from a grave, 1500 B.C. Mandrake roots.

WALL CASES

Cases 293 and 294 (North End)

A series of chemicals, drugs, etc., illustrating the pharmaceutical knowledge of Hippocrates, Galen, etc.

The Treacle of Andromachus. The history of this ancient preparation, which dates from 134 B.C., and specimens of the various ingredients used in its composition, and also of the Treacle as prepared in Constantinople at the present time.

Mediæval drugs, etc.

An Original Turkish Drug Shop, XVIIth Century—Wellcome Historical Medical Museum

Cases 295 to 297

Chinese and Japanese drugs.

Case 298

Japanese portable Medicine Chest.

Cases 299 and 300

Narcotics and Stimulants.

Cases 301 to 305

Medicine chests and cases.

Cases 306 and 307

Pill-making apparatus and Delft slabs. Ancient pharmaceutical apparatus, etc.

Cases 308 to 310 (East Side)

Grinding slabs and mortars in bronze, wood, glass, ivory, etc.

Case 311

Drug and Spice Mills; Spice Containers, etc.

Case 312

Castor-oil spoons and soap stamps.

Cases 313 to 333 (South End)

A comparative series showing various types of Delft, porcelain, etc.; drug containers, arranged according to countries—Italian, Sicilian, Spanish, Portuguese, Oriental (Persian, Turkish, Asiatic, Chinese and Japanese), Swedish, Swiss, Austrian and German, French, English and Dutch.

Posset Pots; food warmers; glass ware; the evolution of the feeding-bowl and feeding-bottle.

Cases 334 to 338

Bleeding-bowls in pewter and Delft, etc. Barbers' basins, etc., etc.

Cases 339 and 340

Barbers' bowls and basins; hot-water bottles; funnels.

Cases 341 and 342

Urinals; bed-pans; cuspidors, etc.

Case 343

Inhalers, etc.

Case 344

Hour sand-glasses.

Case 345

Ashanti weights.

Case 346 (West Side)

Weights and Measures, steelyards, bismars, etc. Spring balances. Native scales and weights, etc.

Case 347 (On Pillar)

Spanish Ergot of Rye. Series of specimens showing its development.

Case 348

Mandrake roots.

Case 349

Quassia and sulphur cups.

UNDER STAIRS

Ancient pharmaceutical and chemical apparatus; grinders, percolators, etc.

Suspended from the roof is a series of pharmacists' and chemists' signboards from various countries.

On the walls and pillars are Oil Paintings, Water-Colours, etc., of Pharmaceutical Interest.

Opening Ceremony

of

The Wellcome Historical Medical Museum

Tuesday, June 24, 1913

Address by

The Chairman, Sir Norman Moore, Bt.
M.A., LL.D., M.D., F.R.C.P.

Then President of the Section of History of Medicine, XVIIth International Congress of Medicine

Mr. Wellcome, Ladies and Gentlemen, I have been asked to declare this Museum open because I chance to be President of the Section of the History of Medicine in the International Medical Congress, which is to be held in London in the month of August. I am glad to have the opportunity of speaking on this occasion, because I feel that this Museum will be a most important aid to the Section of the Congress over which I preside; and that it will be of interest not only to that particular section, but probably to nearly the whole of the seven thousand people, who, from all the ends of the earth, are coming to London to attend the Congress.

Museums are so familiar to all of us at the present day, that we are, perhaps, inclined to think that they have existed from the beginning of time; but that is not the case. They are comparatively modern aids to study. Dr. John Dee, some of whose books we have in the library of the Royal College of Physicians, collected, in connection with his library, a small museum in the reign of Queen Elizabeth. It consisted chiefly of mathematical and astronomical instruments, and various other curiosities.

It was not a very important collection, and most of it was destroyed by a mob who thought that Dr. John Dee was a malignant necromancer.

The first important museum which was founded in England was that of John Tradescant, and of his son, John Tradescant, at Lambeth. The two Tradescants were primarily gardeners. They brought to England many of the shrubs which you see in the gardens all round London at the present day. They also collected herbs in relation to medicine ; and they formed this first general museum. The catalogue of their museum was published by the younger Tradescant in the year 1656. It contains no less than fifteen separate sections of curiosities ; birds, beasts, fishes, plants, insects, warlike instruments, coins, medals, and so on ; concluding with a list of the benefactors of the museum.

Many of us here present have seen one specimen from that museum. It is in two parts ; and consists of the head and foot of the extinct dodo, now preserved in the Ashmolean Museum at Oxford. In the darker times of that University—you know all Universities, even the greatest, occasionally have periods in which their knowledge is clouded by indolence—in one of those dark periods, the University of Oxford destroyed the body of this unique bird ; but fortunately its head and foot are still preserved.

The museum of the Tradescants went to Elias Ashmole—the younger Tradescant left it to him—and so it became the basis of the Ashmolean Museum at Oxford.

Soon after their time, a very important museum was founded in London by James Petiver. James Petiver was a man educated at Rugby School, and must be regarded as one of the glories of that celebrated foundation. He came up to London and was apprenticed to Mr. Feltham, the apothecary to St. Bartholomew's Hospital. He throve in his occupation and became apothecary to the Charterhouse. While there, in addition to performing the duties of that station, and carrying on an extensive medical practice, he made entomological and botanical collections from all parts of the world ; and, in course of doing so, he came to know a great number of sea captains ; and those captains brought him other things than plants and insects, and in that way his museum came to contain

every description of natural object. Petiver had also a very considerable library ; and it is worth remembering that all these early museums were associated with libraries.

Petiver died in 1718 ; and Sir Hans Sloane, President of the College of Physicians and of the Royal Society, bought all his collections. He had previously bought the museum which was kept in the rooms of a Mr. Curten, or Charlton—because he called himself both—in the Temple ; and Sloane added many more specimens to these collections ; and so formed a great library and a museum in almost every part of science. That museum, as you all, I am sure, know, he presented to the nation under certain conditions. It was the beginning of the British Museum. It was, therefore, primarily a library surrounded by collections of the specimens which illustrated everything that was recorded in the books of that library. That was the original view, in the first times of their formation, of museums. There is a very interesting catalogue of one such museum, that of Francis Calceolari in Verona, which appeared in the year 1622. It covers 800 pages folio, and gives an idea of the eagerness of collectors at that time, and also of the wide scope of interest which they felt. There is a picture of the museum at the beginning of the catalogue. It was an oblong room, with a floor of variegated marbles, and round the walls were dressers with drawers in which were specimens, while on the shelves of the dressers there were specimens in bottles, and isolated dry ones, and on the top several stuffed birds. On one side of the museum was a statue of Atlas bearing the world, as if to show that the specimens came from every part of it ; on the other side, one of Minerva, as if to indicate that every kind of learning might obtain aid from it. From the roof there hung numerous dried reptiles and fishes. There were books at one end. Such was the first idea of a museum. " Whatever the earth possesses, whatever has been hidden in the depths of the sea, the toil and skill of Francis Calceolari has collected," says a Latin poem affixed to the catalogue.

The gift of Dr. William Hunter to the University of Glasgow was another museum of this type. It contains pathological, anatomical and natural history specimens, manuscripts, books, pictures and coins.

Such a museum we have at the present day exactly upon the original plan, a great library surrounded by illustrative collections, in the British Museum. Long may it continue so. It is enormously to the public advantage to have at least one such universal collection in our midst. A few years later a more limited kind of museum began to be formed. The celebrated Sir Thomas Browne, of Norwich, had an eldest son, Dr. Edward Browne, who, after taking his Bachelor of Medicine degree at Cambridge, in 1664, came up to London. He has left a very interesting journal of what he did on this visit, and in it he mentions going to see Edmund King, who lived in Little Britain and was surgeon to St. Bartholomew's. Edmund King showed him his collection of anatomical preparations, all of them of intense interest to this young bachelor of medicine.

That was an example of a collection relating to one subject only. Woodward, the geologist, soon after made that collection of fossils in small cabinets which is to be seen to this day at Cambridge, where he founded the Professorship of Geology.

Many other special collections were made; but the greatest of them all was that of John Hunter. He, in his own house, collected a vast series of specimens, not by chance, but as illustrating the principles which he had in his mind, and the truths which he was endeavouring to seek out; a collection mainly concerned with comparative anatomy and pathology, and normal anatomy, and containing some other specimens as well. That collection, as you all know, is at present under the charge of Sir Rickman Godlee and his colleagues of the Royal College of Surgeons, who have proved themselves admirable custodians and improvers of the collection, and have added specimens in every direction, so that they have produced one of the greatest special museums in Europe.

Of special museums, the one which I have been asked to declare open to-day is a fresh example. A museum illustrating the history of medicine has never before been attempted in England.

The history of medicine is a subject which may be pursued in a great many ways. It divides itself into two great branches, and those two branches, I think, are very well typified by two of the figures which I can see before me on the ground floor.

The first is a curious creature with a black mask, with feathers in its head, with a necklace of the teeth of the Spermaceti whale, and with a curious instrument of incantation in its right hand and pointing out with its left, so that I can imagine the creature uttering a strange ejaculation. This is Ixtlilton, the god of medicine of the ancient Mexicans. He may be taken to represent that part of the origin of medicine which has to do with local superstitions, with charms and amulets and incantations.

The other aspect of the history of medicine is typified by the cast of the statue of the Apollo Belvedere, that statue which is perhaps the grandest representation in sculpture of manly intelligence, manly strength and manly beauty. Apollo, the god who, in the Greek mythology, was associated with medicine, in several ways with the control of diseases and, as their thoughts curiously ran, with the causation of disease. Apollo and his son, Asklepios, whose statue is here also, seem thoughtful men, capable of observation, and full of the power of reasoning from observation. They thus present another view of the history of medicine. We can easily feel that they represent men who were the true ancestors, the true observing predecessors, of Hippocrates and Galen and Avicenna.

When we read Hippocrates and Galen, and when we search through the vast pages of Avicenna, all of us who do it carefully must feel that the path from them to Harvey and Glisson and Sydenham and Matthew Baillie and Lister, long though it be, is nevertheless a continuous track, and that those men of the past—Hippocrates, Galen and Avicenna —were the true predecessors, and were men of the same turn of mind, the same kind of thought, the same hope of enlarging medicine by observation, that Harvey, Glisson, Sydenham, Matthew Baillie and Lister were.

The two directions, in one of which most students of the history of medicine are inclined to tread, are towards folk-lore or towards the aspect of medicine as part of the history of the already cultivated human mind. For my part I am inclined to prefer the latter, without in the least wishing to belittle the former.

Those who like the line of study which is typified by Ixtlilton will find in the entrance hall plenty to engage their attention. There they may see very many fetishes and the curious dresses of the medicine men of West and Central Africa; numerous charms in use there among the pagan tribes; and the great god of medicine of New Zealand. Such are very appropriately placed near the entrance of this Museum.

You come on into the room in which we are at present, in which, besides the Cheiron, Apollo, Hygieia and Ixtlilton, are placed models of the gods that presided over medicine among the Chaldeans, the Egyptians and other ancient nations; and in the cases are numbers of instruments showing their variation from remote times. I am merely trying to give you a general idea of what are the contents of the Museum through which you will shortly walk.

Then you come to the staircase, and there are the three Saints who are connected in Christian theology with the study of medicine—Saint Luke, Saint Cosmas and Saint Damian; and as you come up the staircase you find on the walls many paintings. These are enlargements of illuminations occurring in manuscripts, and are a most instructive series, illustrating illnesses and operations and the care of the sick.

Then, in the cases round the gallery, you will see numbers of charms and amulets. Now do not think that these charms and amulets are all matters of the Middle Ages. Many of these have been collected in the East End of London or in various parts of the countryside in England in our own day.

I remember very well the first occasion on which I became aware of the fact that charms and amulets are part of the living belief of educated people, in many cases, in this country. I was staying at a house in the Highlands where a lady, who was also a guest, one day produced from her pocket what seemed to be a small hard stone and showed it to me and asked me if I knew what it was. I said that I thought it was a stone, perhaps picked up on the seashore. "No," she said, "it is a potato. It has obtained this hardness by being carried in

my pocket. I carry it as a remedy for chronic rheumatism from which I have long suffered." I asked where it came from. "Well," she said, "I am not ashamed to tell where it came from. I was staying at Dunrobin when I heard of this remedy, but I was in this difficulty: I was told that the potato would do my rheumatism no good unless it was stolen. I could not bear to strain my conscience even to purchase my health, so I told the Duchess of Sutherland of my difficulty, and she said: "Oh, there is no difficulty; steal a potato out of the garden, it is the Duke's potato, he will not know of it, it will be effectually stolen for your purpose."

So accordingly the lady stole the potato and carried it in her pocket, and, according to her own account, was cured of rheumatism. Well, I came back to London and told this to Sir James Paget, who was then flourishing. "Oh," he said, "when, some years back, I had to attend a lady of very high rank in this country, who had some affection of her knee-joint, I constantly received letters begging me to introduce freshly-peeled potatoes or new potatoes into her bed, or to put them in a basket under the bed, assuring me that if I did so she would at once get well."

Now that, which was the first definite superstition in relation to an amulet which I ever came across in life, is most interesting, because you will observe that, as the potato was only introduced into this country in the reign of King James I., the superstition cannot have had its origin in the Middle Ages, or the Dark Ages or classical times; it is a modern thing.

Now that is one value of the history of medicine; that it opens one's eyes to the fact that so little changed, in spite of education, in spite of civilisation, is the human mind, that a superstition of that sort with regard to an amulet may grow up at the present day. Many more such are illustrated by the specimens here.

In the next room you will find a series of pictures, busts and medals, illustrating the career of physicians and surgeons and men concerned in the sciences relating to medicine. It would take me too long if I were to try to dwell upon many of them, or any of them, in fact.

At the far end you will see the largest series which I believe has ever been collected of portraits of the celebrated Harvey, and amongst them a bust of him, which very few people have seen, because the original is upon his tomb in the remote village of Hempstead, in Essex. When the late Sir George Paget, the brother of Sir James, had taken his degree, having studied at St. Bartholomew's, he was so filled with enthusiasm for Harvey that he went on a pilgrimage to Hempstead and there saw the original of this bust, and had several copies of it made, of which that is one. Sir George Paget also gave one to St. Bartholomew's, and one to Caius College. It is a very remarkable bust, obviously taken from Harvey during his lifetime. On the walls you will find the portrait of almost every physician you have heard of in England.

Sir Thomas Barlow will recognise a large number of his predecessors in the illustrious office which he discharges with so much distinction—that of President of the Royal College of Physicians.

The next room contains a very fine series of early printed books referring to medicine and surgery. In the time of Queen Elizabeth there were large numbers of books relating to medicine and to surgery—more to surgery, by far, than to medicine—published in London. Physicians at that time did not think that it was consistent with propriety to write in any language except Latin, but surgeons held a different view. They were chiefly concerned with operative proceedings and lived among the people. One of them at that time, I remember, says: "Some people say that we ought to know Latin; for my part I care nothing whether a surgeon know Latin or not, so he be a good artist," meaning so that he is able to operate well.

I do not think that writers on English literature have done these surgeons sufficient justice; they have not observed how admirably, in the little anecdotes which they give in relation to their cases, they have brought out the life of the time in the everyday language of the time. Many of their books are in this Museum.

There are also a number of diplomas for degrees. In the Italian Universities the diplomas for degrees were beautifully illuminated, and

they contain very quaint forms of inauguration which have long been forgotten in our Universities. A ring was put upon the finger of each doctor; he was in some cases given a kiss on admission to the faculty; he was crowned with laurel.

There are also some manuscripts, Latin, Arabic and Persian, on medicine; and there is one specimen of that very interesting document, an "album amicorum." When people studied at several Universities, as they often did in the 17th century, they used to have a blank book in which they got each professor whose lectures they attended, and each friend whom they made, to write a little inscription, and some of these inscriptions are most charming. The professors wrote showing their knowledge of the particular man, or their wishes for his prosperity in the future. The students at the University, instead of writing, sometimes drew a little picture, not always having any particular reference to medicine. I remember one in which there is a young lady very gorgeously dressed, a white horse prancing, and a peacock spreading its tail, and underneath is written:

"Ein Pfau, eine Frau und ein Pferd
Sind die drei stolzeste Thiere auf Erd."

I suppose the young lady was perhaps the object of the affections of the student, and that his friend wrote thus as a sort of warning to him.

Now, following those rooms, you go downstairs, and there you come into a vast area containing very many specimens; along one wall there is a series of pictures of Florence Nightingale—in many of the cases there are all kinds of what one would call instruments of nursing rather than of medicine or surgery.

There is a model of the operating table of Ambroise Paré. You will remember that he was the French surgeon who first hit upon the great idea, almost by chance, that it was better not to pour oil and wine into wounds, but to do them up without those additions. Then you come to a series of models illustrating the medical life of other times.

Some great teachers of history have urged that you ought to begin with what you can know perfectly in your own time, and so gradually go back to the times of less knowledge ; and Mr. Wellcome has followed this plan.

The first thing that strikes your eye is a pharmacist's shop which many of us can remember in Oxford Street, which was built in the last decade of the 18th century. There it is, with its window of small panes, containing a great variety of pharmacist's jugs and jars within it. Then, as you go on, if you look at the ceiling, you will perceive printed upon it the prescription for Theriaca. Theriaca was the preparation known to mediæval and even to classical (because it is mentioned by Galen) medicine which contained almost the largest number of ingredients of any compound drug ; I say " almost " because at one time there were some that contained more, but Theriaca had plenty. In that formula there are 75 ingredients. It was thought a good remedy for the plague. An attempt was made to remove it from the Pharmacopœia in the year 1746 ; but the English are a very conservative nation, and it was not possible to do so. It was not removed from the London Pharmacopœia till the year 1788.

Just beyond this wonderful prescription, there are a great many beautiful Italian apothecary's jars ; and then you come to an apothecary's shop in the Old Bailey in the year 1662.

There is the apothecary, reading a herbal in his shop, a crocodile and lizard hanging from the ceiling, and the blue pots, which are proper to an apothecary, are round him on the shelves. When you are looking at him, do not think of him as an illiterate or an ignorant man. Do not think of him as a charlatan. He was not anything of that kind.

We had at St. Bartholomew's at that very period an apothecary named Francis Bernard, who stayed in London throughout the plague. Later in life he was given a degree at Cambridge ; and he became Physician to the Hospital and a Fellow of the Royal College of Physicians. He had one of the most splendid libraries of his time. I have often read

the pages of his catalogue and wondered where the astonishing riches which he had have gone.

Well, Francis Bernard—as the Master of the Society of Apothecaries, himself a learned man, who is here to-day, will tell you—was no exception in his profession. There were many apothecaries of that time who lived in shops like the one in this Museum, who were men of extensive reading, and who made valuable additions in many directions in science, and particularly in botany.

Next to this apothecary's shop is the workroom of an alchemist; and exactly opposite it is a series of pictures of the plague; so that one's mind is immediately turned to Ben Jonson's famous play. You will remember in it how a citizen goes out of town owing to the plague; and how an alchemist, through his servants, gets possession of the house, and carries on all sorts of incantations in it. He was such an alchemist as is modelled here.

The next room illustrating the subject is an early Italian pharmacy, with all its beautiful jars perfectly arranged, unbroken, on a series of shelves. Of course, since your mind has been turned to the theatre, and you have thought of Ben Jonson's alchemist, when you see this shop, you cannot help thinking at once of Romeo and Juliet; but you will see that the pharmacist of the Italian pharmacy of Mr. Wellcome's Museum had thriven much more in his business than the poor apothecary in Mantua who sold Romeo the poison.

Next to these illustrations is a model of a barber-surgeon at work upon the injured skull of a patient. Shaving bowls hang round, and other implements of his occupation. Do not think of him as an ignorant mechanical person. He was not that. The circumstances of the time made him, as William Clowes, one of the barber-surgeons, said, not the least ashamed of being able to shave a man or cut his hair well; but he really had the scientific turn, the intelligence to search after the truth, the desire to cause his patients the minimum of pain, and to cure them with the greatest rapidity, of the modern surgeon.

Such a barber-surgeon was this William Clowes, who was surgeon to St. Bartholomew's in the reign of Queen Elizabeth. He began his life by serving as a surgeon in the army ; and he was present at that famous field of Zutphen, made illustrious by the death of Sir Philip Sidney. He came back to London and practised his profession ; and he resigned his post upon the hospital staff in order that he might serve in the fleet against the Spanish Armada. He wrote several books, all of them fine examples of vernacular English and containing very many illustrations of life in the Shakespearean period.

There is just one more of these representations of past medical life. It is the house of a surgeon of the Empire at Pompeii. There he sits, a man of obviously thoughtful mind, with some few instruments beside him. When one tries to decide whether he was competent, and how far he was competent in his profession, you have to look into the general literature of the time.

In Petronius Arbiter, an author who is supposed to give a good idea of life in a small provincial town outside Rome, near Naples, in fact just where this surgeon is supposed to have lived, it is mentioned that a man had a silver skeleton, with all the joints so made that the limbs could be turned in any direction, and all the vertebræ of the spinal column could be moved so that the spine could be bent in any way. Where such a skeleton was an ornament of a wealthy man's house, it is easy to imagine that the practising surgeon must have had considerable knowledge of anatomy and of the other parts of his profession.

Now there are, of course, innumerable other things which I might mention to you in this unique Museum. I will not detain you with any of them, because you will now have the opportunity of going to look at them ; but I should like to point out one thing before I sit down, and it is this : That it is a just subject of pride that in our country so many splendid museums—those of the Tradescants, of Petiver, of Curten, of Sir Hans Sloane, the Geological Museum of Woodward, the Museum of William Hunter which is at Glasgow, the Museum of John Hunter which is at the Royal College of Surgeons—have all been formed by the exertions and at the cost of private individuals.

This Museum is no exception: it has been formed entirely at the expense, and by the exertions, of Mr. Wellcome, who has followed these good precedents. A lectureship in the history of medicine was founded by a private benefactor at the Royal College of Physicians in 1901, and is at present the only one in England. Mr. Wellcome's Museum will be a most important addition to the means of studying the History of Medicine. I now declare it open.

SIR THOMAS BARLOW, BT., K.C.V.O., M.D., F.R.C.P., F.R.S., etc., *President of the Royal College of Physicians; President of the XVIIth International Congress of Medicine:* Mr. Wellcome, Ladies and Gentlemen, you will all be most anxious to join in thanking Dr. Norman Moore for his most illuminating and most fascinating address. I should like, if it is not quite unseemly, to add one name to the glorious roll of the cultivators of museums, and that is one who has just been taken from us—I mean Sir Jonathan Hutchinson. This is no place and no time to make any appreciation of that great man; but it is fitting that we should remember that he was one of those who consistently maintained the obligation of developing museums, not only for the advance of medicine but for the general advancement of culture throughout the length and breadth of the land. He had made great sacrifices not only for his collection of pathological specimens, but likewise for those educational museums which he founded at Haslemere and the place of his birth, at which he attempted to show the value of the chronological study of human affairs throughout the centuries. At this time I think it is fitting to remember with gratitude Sir Jonathan Hutchinson, who did so much in this direction.

Ladies and Gentlemen, I am sure that everybody present in this Museum at some time or other has had to face the problem—the ever-recurring problem—of what is justifiable luxury and what is not justifiable luxury. I am sure that not only is that so in great affairs, but it has been the lot of many of those who are around me to stand before an etching, or a water-colour, or an old Greek coin, or some charming specimen, whatever it may be, and ask himself how far it was right for him to spend money on something of this kind, and how far it was justifiable for him to do it.

I will affirm, without fear of being contradicted, that Mr. Wellcome himself, during the long period in which he has spent so much time and so much energy in getting together this magnificent collection, must have had now and again the same question occur to his conscience ; but, Ladies and Gentlemen, I think we may all of us assure him to-day, when we walk round, and when we think of the amount of intellectual enjoyment that will be given, when we think of the impetus to men and women of our own profession in the art of studying the evolution of medicine as we can see it here, and when we think of the enormous profit which will be given to cultured men and women of thought and reading, not only of our profession, but who follow the old Roman adage : that nothing is foreign to us that is human —I say, when we think of all these things, we may, I think, rightly tell Mr. Wellcome that he may take comfort to his soul, and that he may feel that this Museum has been a case of justifiable luxury.

I think the years will come when, as he reflects and considers what happiness and what instruction this Museum has given to this generation, and will give to generations to come, it will be a pleasure to him to remember that it was inaugurated by one who is without doubt one of the ablest scholars in the study of the history of medicine.

Sir FREDERICK TREVES, Bt., G.C.V.O., C.B., F.R.C.S., etc., *Vice-President of the International Congress of Medicine :* Ladies and Gentlemen, I have very great pleasure in seconding the vote of thanks that Sir Thomas Barlow has proposed to Dr. Norman Moore for his most learned and most interesting address. It tempts me to take the opportunity of expressing to Dr. Norman Moore what the medical profession owes to him for his contributions to the history of medicine, and the immense service he has done in observing and recording the lives of those who have been distinguished in the history of medicine and surgery in the past. It is an obligation impossible to discharge, and one I am quite sure that the whole of the profession very heartily appreciates.

I will not detain you with any comments on this Museum beyond saying this : it would be hard to exaggerate the importance and service of it. The progress of medicine has been so rapid as to

be astounding and bewildering; and a Museum of this kind, established and laid out as Mr. Wellcome has laid it out, enables one to pause for a moment and look back on the route that we have traversed. We have reached a height, possibly a great height, and it is well to look down into the plain that we have crossed, and to see by what steps we have reached the position that we now occupy.

I take it that progress in a matter like medicine and surgery proceeds on lines that, although they appear to us to be exceedingly diverse, have yet beneath them one or two common principles; and one cannot help noticing in this Museum, so far as the art and science of surgery are concerned, in what narrow lines that progress has been made; and, knowing that and studying it, one can forecast to some extent in what direction progress in the future will move.

It is curious in this collection of surgical instruments to see that, although one supposes there is really no limit to human ingenuity, there is no limit to adaptation and to enterprise in the matter of adapting means to an end; it is curious to see, having that impression, upon what very simple lines progress has been made in connection with surgical instruments.

Invariably they begin as complicated instruments and gradually become simpler and simpler until they resolve themselves into some of those very commonplace instruments that we are so familiar with at the present time. I will say no more except to very heartily second the vote of thanks which has been proposed to Dr. Norman Moore.

DR. NORMAN MOORE: Ladies and Gentlemen, I thank you very much for your kind vote of thanks. I am glad to have interested you; but there is a person here to whom your thanks are much more due, and I will ask Sir Rickman Godlee to propose a vote of thanks to him.

SIR RICKMAN GODLEE, BT., M.S., M.B., B.A., F.R.C.S., etc., *President of the Royal College of Surgeons:* Ladies and Gentlemen, I have the pleasure and great honour of rising to propose a vote of thanks to Mr. Wellcome, the patron of this wonderful feast which is laid before

us—I almost feel that I ought to propose his health, when one thinks of the dangerous regions to which he goes.

I had the pleasure, yesterday afternoon, of being taken round by Mr. Wellcome for a short time to some parts of this glorious Museum ; and I was very much struck with the interesting way, and the very modest way, in which he showed me some of his magnificent treasures.

But there is another side to Mr. Wellcome's character, or to his occupation, which few of us know ; and that is one which is carried on very far away, in some of the most distant parts of the King's dominions.

I think Mr. Wellcome is a very fortunate man, in the first place, to be here this afternoon, to see all the treasures he has collected looked at by an admiring crowd ; and in the next place, because he has a hobby which, at the same time, is extremely fascinating and also intensely useful.

Mr. Wellcome has, as we know, laboratories in Africa. We know that he has not only a laboratory on land, but he also has that wonderful floating laboratory, of which you will see a model in the front of this Museum, with which he carries the war, it may be said, right into the enemy's camp ; for he and the laboratory staff, protected by a wire gauze screen, can attack the mysteries of the mosquito by day and sleep secure from them by night.

From time to time there are issued from those laboratories most beautiful reports, written by the Director and his collaborators, which show us not only the country in which they move, but the ghosts of the inhabitants who dwell there, and the flies which kill them.

This brings home to us very vividly the sort of work which Mr. Wellcome is doing. It shows us not only that he is greatly interested in the study of tropical diseases ; but also that he is interested in the study of anthropology ; and all these things are combined in this marvellous Museum. I think, however, that the point which we particularly wish to thank Mr. Wellcome for this afternoon is the great public spirit he has shown in expending his time and his wealth in forming this valuable Museum.

I am very glad to see in the foreword, which is put at the commencement of the catalogue, that it is his intention that ultimately this Museum shall be a permanent asset to the nation. I wish, Ladies and Gentlemen, from all these points of view, to tender our sincere thanks to Mr. Wellcome for the collection that he has made and for inviting us here this afternoon to its opening.

Sir FRANCIS CHAMPNEYS, Bt., M.D., M.A., F.R.C.P., etc., *President of the Royal Society of Medicine:* Ladies and Gentlemen, I rise with very great pleasure to second the vote of thanks to Mr. Wellcome for this magnificent addition to the Museums of this Metropolis.

I think the feeling that strikes my mind most at the present time is that of envy of my juniors. One is just ending one's career, and one only wonders what one would have been if one had had the opportunity of starting with all the knowledge that now opens before one's juniors. It is harking back to the old that is so very exciting, I think, in the present day.

Those who have the opportunity of studying a collection of this sort, and going back to see what their ancestors did and thought, and what the inhabitants of distant lands have thought and are thinking about this great study of disease, cannot fail to have their imagination excited in a way which surely must bear fruit.

This seems to me to be the most fruitful part of such a study as that of the history of medicine. I know that it is recognised in the Universities to a great extent where Professors of Medicine, and no doubt other subjects show those who are beginning their studies some of the finest things that have been attained in the past.

Now I do not think that anything that has been recently done in London is more likely to excite the imagination of the medical student than a collection of this kind. I shall certainly, as far as my influence goes, beg those young men over whom I may have any influence, who are beginning the study of medicine, to come here and to study carefully all the fine things which they may

see here, so as to begin with their minds set in the right direction. I will not do more than cordially second the vote of thanks to Mr. Wellcome, and trust that his great enterprise and generosity will bear fruit which he himself will live to see.

Mr. HENRY S. WELLCOME : Mr. Chairman, Ladies and Gentlemen, I am deeply grateful for the generous expressions which have fallen from Sir Rickman Godlee, Sir Francis Champneys and the other speakers. Our special thanks are due to Sir William Osler, Dr. Norman Moore, Mr. D'Arcy Power, Dr. Raymond Crawfurd, Dr. A. J. Chalmers, and many other eminent men throughout the world who have so liberally assisted me in many ways with kind advice, valuable suggestions and the utmost co-operation which have contributed immensely to the success of this undertaking.

Many have manifested their keen interest by lending, and, in numerous instances, generously presenting, objects of the highest historical importance. I may also say that many of the great Institutions have been equally liberal in their co-operation and assistance. Also our thanks are due to members of my staff who have taken part in the work of classifying and arranging these exhibits. Their task has been, as you will appreciate, very great.

The official connection of this Museum with the International Medical Congress shortly to be held in London, of which Sir Thomas Barlow is the President, and our Chairman to-day is the President of the Section of the History of Medicine, greatly encourages me in this undertaking. The co-operation of the Section of History of Medicine will greatly enhance the value and usefulness of the Museum.

This Museum I regard as at its very beginning, though the collection and organisation have occupied many years. It is my intention to found in London a Bureau of Scientific Research (applause), and to appoint, as the Director-in-Chief, Dr. Andrew Balfour, who for nearly 12 years has rendered such distinguished and fruitful service as Director of the Tropical Research Laboratories at Khartoum. I am gratified to see Dr. Balfour present with us to-day. The tribute Sir Rickman Godlee paid to me with

regard to the work of those laboratories should be paid mainly to Dr. Andrew Balfour. This Historical Museum might well form a fitting and permanent adjunct to the Bureau of Scientific Research.

It is my idea and my intention that this Museum shall be a permanent institution. The value of history to research workers is beyond estimation. Reviewing the failures as well as the successes in the great past is not only informative but is often inspiring. In the course of my long researches into the history of medicine, I have come to the conclusion that we can gain a great deal of useful information from primitive peoples in the art of healing, and particularly in surgery.

In my own personal experiences amongst primitive races, I have sometimes found traces of the origin of what are usually regarded as entirely modern discoveries. Some things have been discovered in remote ages and lost, or forgotten, and re-discovered. Some ancient discoveries have continued in use through all the ages.

Dr. Reisner, in the course of his archæological excavations in Nubia, found some well-made bamboo splints, dating, I think, some 2000 or 3000 years B.C. Captain Anderson found similar splints in use in the Southern Sudan some years ago, and I myself have seen them in use in the Upper Blue Nile region. A few days ago, in Morocco City, Southern Morocco, I saw exactly similar splints being used, and secured them for this Museum. The perpetuity and the re-discovery of ancient devices are exceedingly interesting subjects for investigation.

In organising this Museum, my purpose has not been simply to bring together a lot of "curios" for amusement. This collection is intended to be useful to students and useful to all those engaged in research. I have found that the study of the roots and foundations of things greatly assists research, and facilitates discovery and invention.

I thank you all for honouring me by your presence.

Reprinted from "British Medical Journal," September 13, 1913

THE WELLCOME HISTORICAL MEDICAL MUSEUM

The great interest aroused by the Historical Medical Museum during the recent meeting of the International Congress of Medicine has not abated, and we learn that the daily attendance at the Museum is still large. We recommend all doctors interested in the evolution of their art to visit it before September 30th, when it will be closed, to reopen, we believe, in the Spring. Short accounts of the Museum appeared in the Journal of May 10th, p. 1035, and June 28th, p. 1379. Since then considerable additions have been made to the collection; but it is Mr. Wellcome's wish to make it as complete as possible. Many families have relics such as MSS., early printed books, diplomas, prescription books, autograph letters and other documents and objects associated with, or collected by, their ancestors who were engaged in medicine, surgery, pharmacy and the allied sciences. Often, on the death of those who cherish such relics, the things are relegated to the garrets, or sent to auction rooms where they are scattered amongst strangers who buy them for a trifle as curios, and so the history and record of associations with the original inventor or user are lost for ever. We venture to suggest that it would be well if these things could be sent to take their place in the Historical Medical Museum, which has now been established in London on a permanent basis by Mr. Wellcome, where they would be preserved, and at the same time form a permanent tribute to the work and memory of those from whom they have been handed down. Many things which are insignificant and of little historical value in themselves if isolated in small private collections become important when brought into association with a series of others arranged chronologically; they often supply the missing links in the chain showing the evolution of such objects. An isolated historical object may be aptly compared to a single mosaic tessera which in itself alone signifies nothing, but when put in its place with others becomes part of a picture, and thus may help to complete a lasting record of a famous deed or a great event.

Re-Opening Ceremony

of the

Wellcome Historical Medical Museum

Thursday, October 14, 1926

Introductory Speech by The Chairman, Sir HUMPHRY ROLLESTON, Bt., K.C.B., M.A., M.D., F.R.C.P., *Regius Professor of Physic, University of Cambridge*, who with Dr. JOHN D. COMRIE, M.A., F.R.C.P., F.S.A., *Lecturer on the History of Medicine and Clinical Medicine, University of Edinburgh*, received the guests, in the unavoidable and deeply regretted absence of the Founder—(Mr. Henry S. Wellcome) :

Ladies and Gentlemen, the study of medical history is somewhat paradoxically a modern development, and its expansion in this country has been largely due to Dr. J. F. Payne, Sir W. Osler, Sir Clifford Allbutt, and especially to Sir N. Moore, who, as President of the Section of the History of Medicine of the International Congress of Medicine in London, opened for the first time this Museum on June 24, 1913. Since then it has grown from strength to strength, and, after a complete re-organisation, which necessitated its closure for eleven months, is virtually a new Museum. This research Museum is intended to be continually progressive ; not to remain as the last word in 1926, but to keep up with the advance of medicine. In the various groups, such as anatomy, physiology, chemistry, pharmacology, orthopædics, obstetrics, psychiatry, massage and antiseptic surgery, it will show at a glance the evolution of ideas, discoveries and inventions in a really scientific manner. Thus, in addition to advances, it will elucidate the retrogressive changes which took place in some ancient eastern countries and in Europe during the dark ages.

Familiarity with what " famous men and our fathers who begat us " have done to build up our present state of knowledge has a great educational value. Further, it exerts a wholesome influence in making us feel modest from the realisation of what our professional ancestors did in so much less favourable circumstances ; we may indeed even find that discoveries made, or largely anticipated, by them years ago and long forgotten, have independently again been brought to the light of modern eyes. It is salutary to look back and occasionally, as has been done with much advantage

in the past, to act on the dictum "back to Hippocrates." The Great War carried the practice of surgery "back to Lister," the centenary of whose birth will be celebrated next year. Antiseptic surgery and anæsthetics are the two greatest milestones in the advance of surgery, and here is presented a collection of Listerian relics—unrivalled for its completeness; it includes part of Lister's Ward in the Royal Infirmary, Glasgow, where he did his immortal work, which, had it not been for Mr. Wellcome's prompt action, would have been for ever lost when the building was demolished two years ago.

London is fortunate indeed in this unique Museum, and the whole medical profession are under a deep debt to Mr. H. S. Wellcome for his unbounded generosity and enterprise in making and throwing open to us all this wealth of historical lore. It is indeed difficult to say what this Museum, with its contents and a library of more than 100,000 books, manuscripts and incunabula so quietly amassed, will mean to medicine in the future. Its resources have always been most freely at the call of those interested and working at the subject, as the Members of the Section of the History of Medicine know to their continual advantage.

Mr. Wellcome is greatly disappointed that, being unavoidably detained in America in connection with an important humanitarian mission of which he is in charge, he cannot be here to-night. He sends you his warmest greetings and wishes to bring to your notice the devoted labours of his staff in re-arranging the contents of the Museum, especially the great skill and enthusiastic devotion of Mr. L. W. G. Malcolm, who was trained in the evolution of scientific thought by the late Dr. W. H. R. Rivers, and he asks me to do the impossible, namely, to take his place as host.

WHAT SHOULD MUSEUMS DO FOR US?

HISTORICAL ADDRESS BY SIR ARTHUR KEITH, M.D., F.R.C.S., F.R.S.,
Conservator of the Museum, Royal College of Surgeons, England

Often there comes back to me, when I think of what was happening in this great city in the middle of last century, a vision of the wan and studious face of Henry Thomas Buckle as it was bent over the manuscript of his "History of Civilization in England." As he wrote in his study, a long,

lofty gaunt room with Northern roof light, he was surrounded by thousands of manuscripts, deeds, documents and books—the material of history. Buckle thought, and there are many to-day who still share in his belief, that history could be written only in this way. Even when Buckle tells of the discoveries made by William Smith in the opening years of the nineteenth century—of how the crust of the earth was arranged in strata and that the order and age of the strata could be told by the fossils contained in them—he did not perceive that geologists had discovered a new way of writing history by deciphering things and not words. In this new way the history of the world on which we live is now being written; when geologists began to arrange their fossils in an orderly way on the shelves of a museum, that museum thereby became not only a history of the earth but of all the living things that had appeared on it during past times. Presently it was discovered that the early history of man himself could be written in the new way. In Buckle's boyhood —he was born in 1821 and died in 1862—the archæologists of Denmark discovered that it was possible still to write the early history of their own country. They searched ancient tombs and peat-mosses for all things which showed traces of man's handiwork and gathered them—each labelled and documented—on the shelves of a museum, and presently that museum became a history of Denmark. The archæologists perceived that Denmark had passed through three epochs—one, in which only stone or bone had been used for weapons or tools; another, when stone and bone were being replaced by bronze; and a third, in which iron began to be used instead of bronze. Hence the division of the prehistoric time into three periods—stone, bronze and iron. History begins when a chronological table has been established, and we see this method of writing pre-history reaching a climax in the hands of Sir Arthur Evans; the history of Crete has been deciphered by the spade and written on the shelves of the Museum at Knossus. It is in this way that the beginnings of our modern manner of living are being deciphered in Mesopotamia and Egypt. Museum-making and history-writing are the same thing.

England has a way of throwing up sporadic crops of great men; she had a bumper crop in the 19th century: Darwin, Galton, Taylor and Pitt-Rivers came along almost in a bunch—Darwin leading. It was

Pitt-Rivers who demonstrated how reliable human history could be built up, bit by bit, in the shelves and show-cases of a museum ; it was he who made the spade an instrument of exact history in the hands of a trained observer ; it was he who pressed home the study of living primitive peoples as a clue to the customs, myths and beliefs of our long dead ancestors. What Pitt-Rivers did for human culture in general Mr. Wellcome has sought to do for a great branch of human knowledge—all that pertains to the art and science of healing. He has ransacked the world and brought together under one roof a rich, rare and vast assortment of materials for the history of Medicine such as has never before been seen or studied in any country. It would be dangerous in these times, when we dispute so keenly how far men simply imbibe ideas and how far they beget them for themselves, to speculate as to the influence which the example of Pitt-Rivers may have had on Mr. Wellcome. I believe, in this case, we have an instance of independent origin. Be that as it may, I am convinced that we who have to do with the administration of museums will do well to adopt Pitt-Rivers as our Patron Saint.

Now the evolution or history of medicine is more difficult than any other branch of knowledge to illustrate by museum methods. The trend of evolution is nearly always towards complication ; if we trace the history of a man's fighting weapons, we begin with a few types of a simple kind and we end in these modern days with the innumerable and highly differentiated engines of war. But in Medicine it is otherwise ; even amongst the most primitive races of mankind, we find that the practice of medicine is founded on an elaborate code of beliefs ; these beliefs are the fine-drawn gossamer of savage fancy—altogether too delicate threads for the clumsy fingers of museum curators to touch. If our task were merely to illustrate how the Medicine Man, whose image you will see to-night in his hut in New Guinea, seated amidst the simple and uncouth emblems of his art, becomes the fashionable physician of Harley Street with the artillery of modern science at his disposal, there would be no technical difficulty, for from the countries which lie between New Guinea and Harley Street we could cull a perfect series of ascending forms—an intermediate series of the kind which is so dear to the hearts of museum curators. Our difficulties begin when we seek to portray how the native practitioner looks upon the

human body when it is well and when it is ill. Until we have surmounted this difficulty we cannot appreciate the riches which are shown in Mr. Wellcome's "Hall of Primitive Medicine."

To give a concrete representation of the beliefs in which Medicine begins is particularly hard for men like myself. We have been trained to accept only what we can see and prove, to suppress all our childish notions. We find it almost impossible to take the mentality of primitive medicine seriously. It would have been otherwise with Lewis Carroll, the immortal creator of "Alice in Wonderland"; he understood how children reasoned and, therefore, could have entered the hearts of primitive men, without effort. There can be no doubt that in the play of his fancy, early man, like the primitive races of to-day, was a child and had a childish way of reasoning. The late and gifted Dr. W. H. R. Rivers, in his enquiries into the theory and art of Medicine among the natives of Melanesia, was able to lay aside the scientific armature of his mind and to adopt the point of view of the practitioners he encountered in primitive communities. He found that the rudest native practitioner had, like his counterpart of Harley Street, a definite theory of disease and that the means he adopted for its cure were a logical outcome of this theory. Had Lewis Carroll told a New Guinea medical man that after the material Cheshire cat had vanished its smile remained behind, the statement would have been accepted without the raising of an eyebrow. It must be a very long time ago since primitive man began to look on the human body as a mere husk and the spirit within it as the real person, for this way of interpreting the living body is almost universal among native peoples. On this belief the native physician bases his treatment of disease. If a man is to be free from illness, his spirit must remain free, intact, uninjured. Illness, the native holds, springs from the spirit—not, as we believe, from the flesh. If the spirit be driven out of the body and forsakes it permanently, then death occurs. This is how the Melanesian explains death to himself and to his patients. Hence, a native practitioner's business is to discover in what way injury or damage has fallen on his patient's spirit, and, as these injuries are usually caused by other spirits or baneful influences, it is clear that a native, to practise successfully, must have studied and mastered the ways and wiles of these immaterial beings and things. The expert native practitioner is

he who can best cajole the cloud of spirits which permeate the air of primitive communities.

As we dig into the beginnings of Medicine we find that its foundations are laid on leechcraft, witchcraft and priestcraft. The early physician was also magician and priest. Unless you have grasped this truth you will altogether fail to understand Mr. Wellcome's " Hall of Primitive Medicine " ; for in that Hall you will find a wealth of amulets, charms, talismans, mascots, phylacteries, totems, fetishes, divination bowls, effigies, idols, masks and ceremonial dresses. When you examine the contents of that room you are really surveying a massed field of therapeutic artillery—the batteries by which ancient physicians sought to banish illness and disease from their patients, thus staving off death. The counterparts of the native artillery in Harley Street are the stethoscope, the bismuth meal, notebook for prescription, and a certain professional air.

I have drawn your attention to this part of Mr. Wellcome's collection for a special reason. When we seek to represent in a museum the theories and beliefs which guided the practice of Medicine in olden times, we encounter a grave difficulty. Let me explain the nature of this difficulty. If we dress a lay figure in a policeman's uniform, place a helmet on the head, a baton in one hand and handcuffs in the other, and lay open the policeman's notebook at the page he made his last entry, we bring before our visitors such a representation of law and order as enters their understanding without any further explanation. But suppose we have merely the arm badge of a special constable at our disposal ; how are we to make our visitors understand its full significance if they have never encountered a policeman in their life ? That is just the difficulty we have to face in representing early stages in the evolution of Medicine ; the divination bowl, fetish, amulet, charm, mascot and effigy are but the symbols of the ancient practitioner's art ; each is pregnant with significance ; it needs a world of knowledge to interpret that significance. It is otherwise in all the modern departures of Medicine. You will have an opportunity to-night of examining in this Museum all the stages in the evolution of utensils, apparatus and instruments employed in modern Medicine and Surgery ; never before has the story of surgical instruments been told with such a wealth of

illustration as will fall under your eyes here. The microscope is the main instrument of medical progress; this Museum contains its full history in the great collection shown in the Gallery. Never before have such pains been taken and so much wealth lavished to secure exact reproductions of the conditions amidst which druggist, chemist and apothecary carried out their respective callings in past times. You will see the actual ward from the old Infirmary of Glasgow in which Lord Lister banished from the world for ever some of the most dreaded of human sufferings. If you are inclined to think that the value of this exhibit is sentimental rather than useful, a glance at its bare, ugly walls and its sordid equipment will alter your opinion. I was trained in just such a ward and know that the picture here preserved is true to its time. The men and women of a younger generation, who have grown up in clean bright wards with modern equipment, can only realise the blessings which progress has brought them when they view the ward in which Lord Lister's patients lay as he and his nurses ministered to their needs.

You will turn away from Lord Lister's ward devoutly thankful that it is now only a historical record; it depicts a state of matters which we have left behind us. It is possible, as you walk through the Hall of Primitive Medicine and your eye catches again the weird and uncouth equipments of native witch-doctors which cover its walls and fill its cases, that you will view these exhibits as mere flotsam and jetsam from the Dead Sea of Medicine —one which enlightened England has long since swept away. I should like to think this is so, but when I see, as I sometimes do, mascots on the motor cars of the wealthy, charms and amulets treasured by many people —both rich and poor—ignorant and educated; when I see, as I occasionally do, the quack preferred to the man who has given his life to the study of rational Medicine; and when I see learned men call in spirits to explain unusual physical phenomena; then I am not quite so certain that this part of Mr. Wellcome's Museum does represent altogether a past stage of things. In all of us there still remains more than a trace of the primitive man.

Now I come to what is the main matter of my discourse. What is the service that such a Museum as this should render to Medicine? Let

me put the question on a wider basis. What should museums do for us? You will pardon my immodesty if I refer for a moment to the services which museums have rendered to myself. Thirty-five years ago I returned from a sojourn in the East, where I had accumulated a great many facts relating to anatomy, and in my pocket just enough money to secure food and lodging for a year or two. My little cargo of anatomical facts was of no use in the world of learning until it had been compared with and added to cargoes brought home by previous voyagers into the realms of Anatomy. It was my first duty to assimilate the publications of other workers and to study kindred material which had been gathered in our great Museums. The British Museum was thrown open to me; in its Reading Room attendants brought and laid before me books and manuscripts of all times and of all countries. The treasures in the Natural History Museum, South Kensington, were placed freely at my disposal. The Museum which I have now the honour to be closely connected with, served me as a study and as a research room. All of these institutions were provided for me gratis, free and for nothing. I never enquired into the cost of running these great institutions during the years I was using them, but I can tell you what all three cost last year. The British Museum, Bloomsbury, required £221,000; the Natural History Museum, South Kensington, £100,000; the Museum of the Royal College of Surgeons, the most economical and best Museum of its kind in the world, £6000. Now that is a great sum of money; museums, as Mr. Wellcome knows well, are very costly machines to run, to say nothing of the initial cost of bricks and mortar, and also outfit. To produce an income of £327,000, the sum now spent annually on these three institutions, needs a capital of about 6½ millions. You can see, then, that in those early days of study and research in London I was, although I did not realise it, terribly wealthy. I had the privileges of a Crœsus—a multi-millionaire. At least I had at my disposal that which had cost millions. It is plain that museums as instruments of research are very costly, and you may ask if the country is getting an adequate return for its great outlay. Well, if I had been the only student who then enjoyed museum benefits, our country would have had an altogether unsatisfactory return for its expenditure, but I was only one of many of that generation. The generation which was young thirty years ago is now

providing their country with leaders and teachers, and England is reaping to-day the harvest she sowed in museums a generation ago. You see that I do not hesitate in regarding the increase of knowledge—the fostering of research—as the first duty of a Museum. Unless a museum is permeated with a spirit of enquiry it is dead. It is not enough to furnish a museum with the materials needed by students; no conservator can understand what a student needs unless he is also a student. The staff of a museum must be permeated with the love of knowledge and know how it can be extended if their institution is to thrive; and no man can continue to be a student unless you give him an exit for his knowledge. Unless he is encouraged to coin his gold and pass it into circulation, his mint becomes choked. One knows that a museum is prospering when the members of its staff are participating in the proceedings of learned societies and contributing to their publications. One knows that a museum is fulfilling its primary function when its rooms and closets are frequented by research students from homelands, colonies and foreign countries, and one knows that its contents are being rightly used by the frequency of grateful acknowledgments in learned publications. The literature which issues from a museum determines its status, and in this literature I include catalogues.

If the first duty of a Museum, such as this of Mr. Wellcome, is to serve the needs of students and through students the public weal, there is a second duty no less important. There is its immediate duty to the public—the duty of direct education. It is this double duty of a museum that taxes the ingenuity of us conservators. To expose the whole of our resources to the gaze of visitors would be to satiate—not to whet—their curiosity. We produce in them not only headache but mental dyspepsia. We have to select from our great stores on which special students regale themselves, just those prime pieces of instruction which, when set in a right order, tell their story with emphasis and without words. Such an art needs a special genius, just as "window-dressing" does in the world of commerce, but I have noticed that the best elementary treatises are usually written by the most learned of our masters, and I am therefore hopeful that the most learned of our curators will also prove the greatest craftsmen in the art of "case-dressing." It is an art which makes a special appeal to Mr. Wellcome,

and he has surrounded himself with a staff of learned and expert men. He has chosen, as his Conservator, Mr. L. W. G. Malcolm, one who is already known by his important contributions to anthropology, and we all wish him and his colleagues the utmost success in fulfilling the aims which the founder of this Museum has in view.

All of us who regard museums not only as repositories of valuable things but as engines for the advancement of knowledge owe a debt to Mr. Wellcome. Students of history are usually poor men and this is particularly true of those who seek to unravel and write the true history of Medicine. The materials needed for our studies are far beyond the resources of our purses. There are those men, who, setting out in their careers to banish care by obtaining a sufficiency to carry them and theirs to the end of life's journey, awake to find that wealth accumulates on them so fast that affluence becomes more burdensome than the cares of poverty. Well! we who benefit from museums are not in this group of men. If a poor man has to seek comfort in philosophy, a rich man, if he is to retain his soul, has to seek it as a necessity. The other day it was my good fortune to read a book written by a man who has become both a millionaire and a philosopher. "I have long felt and believed," he tells us, "that every man who has attained material success should look upon himself as an investment, so to speak, which the community has made. In return for the opportunities given to him and for the financial results they have brought, it is up to him to yield dividends in service and in other things of value to the community." Long before this philosophy for wealthy men had been formulated, Mr. Henry S. Wellcome, in his own quiet but efficient way, had begun to put it into practice. He had come to the rescue of us poor students and put at our disposal, and for the ultimate good of mankind, this Museum with its rich and rare stores of knowledge culled from all the countries of the world and from all periods of time. He has lifted our poverty above all dreams of avarice and has thereby earned the lasting gratitude of all who believe that the safety of our civilisation lies in the progress and dissemination of knowledge.

Sir FREDERICK KENYON, K.C.B., G.B.E., M.A., D.Litt., LL.D., *Director of the British Museum* :—

Sir Humphry Rolleston, Ladies and Gentlemen, it is my pleasant privilege to propose a vote of thanks to the two speakers to whom we have just listened. That is very easy : you have already in your own minds passed such a vote. No two better or more distinguished representatives could have been chosen of the two aspects of this Museum. Sir Humphry Rolleston has spoken for Medicine, Sir Arthur Keith for the History of Science. I will not presume to thank them for having come here to-night. They have come here, not to please us, but to do honour to the great benefactor to whom we owe this Museum. But we who have had the pleasure of listening to them would like to tell them how much we have enjoyed their addresses, and that we have taken to heart the wise words which they have spoken to us.

But there is another expression of thanks which we all have in our minds—our gratitude to and admiration for the founder of this Museum, Mr. Wellcome. It is a great grief to us that he is not himself present to-night. For years he has spent not only his money, but his personal labour, to promote the cause of research in the history of medicine. He has personally conducted excavations in the Sudan ; he has gathered materials from every part of the globe ; he has lavished money in the purchase of specimens, and in the manufacture of facsimiles when originals were not to be had ; and this great Museum is but one among a number of institutions for the promotion of research which he has founded, notably the Research Laboratories at Khartoum, the Bureau of Scientific Research, and the Chemical and Physiological Research Laboratories in London. And yet he has kept himself and his great work out of the limelight.

I presume that I owe the honour of being invited to address you to-night to the fact that I am connected with a great Museum. But on this score there is no occasion for me to say much to you, because Sir Arthur Keith has said all that need be said on this topic. He has laid down, clearly and emphatically, the two great functions of a museum—its duty to the student and its duty to the public ; or, in other words, its services to research and its services to education. Now I believe I am right in saying that of these

two functions, both of which must be constantly in the mind of the Director of a great public Museum such as that for which I am responsible, it is the first that is the prime object in Mr. Wellcome's mind. This Museum is before all things a museum for the student, an instrument of research. And here let me most emphatically endorse what Sir Arthur Keith has said as to the part played in such a museum by its staff. Where a museum contains, as this does, the materials for original research, it is essential that it should possess a staff capable, both in quantity and quality, of conducting research themselves and of assisting the researches of others. The two duties go together. It is only the man who knows what research is, and is acquainted with his subject, who can effectively help the researches of others. No one is better aware of this truth than Mr. Wellcome. Already there is a series of Research Studies in Medical History, issued under the auspices and imprint of the Wellcome Historical Medical Museum (to which Sir D'Arcy Power, who is to follow me, has himself contributed); and I feel sure that things will be so arranged that this Museum will become, not merely a storehouse of materials (invaluable though it will be in that respect), but also a College of Research, from which will proceed a succession of monographs which will promote the advancement of scientific knowledge.

There are two great men in the history of Medicine whom, above all others, I wish we could have seen present to-night; two men, separated by more than two hundred years in time, but akin in their wide knowledge and in their tastes and interests; two men, of whom the later had a peculiar devotion for the earlier, and both of whom would have taken the liveliest interest in this Museum. I mean Sir Thomas Browne and Sir William Osler. Can we not imagine what curious and illuminating reflections this wonderful collection would have stimulated in the mind of Sir Thomas Browne, and in what quaint and beautiful English he would have expressed them? And Sir William Osler, the beloved friend of many of us here to-night, the devotee of Sir Thomas Browne, with his eager interest in the history of science, his alert and well-informed mind, his readiness to help every good work and to encourage every real student, would not he, of all men, have been at home in this Museum, and would not he, of all men, have appreciated its possibilities

for good? I can think of no two more appropriate patron saints for a Historical Medical Museum.

As an official representative of Museums, I welcome this addition to our fraternity, and am sure that it will reach the highest standard of service to the community, which is the ideal of every Museum that is worthy of the name. And as a member of this gathering, and on your behalf, I offer to Sir Humphry Rolleston and Sir Arthur Keith our most sincere thanks for the pleasure and profit which we have received in listening to them.

SIR D'ARCY POWER, K.B.E., M.A., M.B., F.R.C.S.: Sir Humphry Rolleston, Ladies and Gentlemen, I gladly second this vote of thanks to Sir Humphry Rolleston for presiding over us this evening, and to Sir Arthur Keith for giving us one of those charming lectures which we always expect from him and are never disappointed. It gives me an opportunity, too, of adding my tribute of praise to the value of the Wellcome Historical Museum on this occasion of its re-opening after the thorough cleaning and re-arrangement to which it has been subjected. I was present when the Museum was formally opened by Sir Norman Moore in 1913, and I may claim perhaps to be the one who has profited most largely by Mr. Wellcome's liberality in throwing open the collection to every student of the history of medicine. The Museum is unique, for no other nation has yet gathered together the remains of former practices in every branch of medicine from the earliest days in man's history to the present time.

There is still more than a lifetime's work to be done in arranging and describing the present collection, and it is being added to daily. I hope, however, that Mr. Wellcome will not wait until it is complete—for that will never be—but will continue the plan he has already begun of making parts of the Museum known to the world at large by individual publications bearing the stamp of the Wellcome Historical Museum. The Wellcome series of books has been well received by the medical press of all countries. More would be acceptable, for there is an increasing number of highly educated medical men in Great Britain, the United States, France and

Germany who are now taking an interest in the older literature of their profession. The Library attached to the Museum contains many rare books and some manuscripts which could be printed with advantage.

Ladies and Gentlemen, I will say no more, but just remind you that I rose to second a vote of thanks proposed by Sir Frederick Kenyon, and I do so most heartily.

THE CHAIRMAN: Sir Frederick Kenyon and Sir D'Arcy Power, I shall be very brief in replying, because I think it is entirely obvious that I am only a kind of St. John the Baptist, who should leave Sir Arthur Keith to make the speech; as he made the speech of the evening, it is up to him to reply. I thank you very much.

SIR ARTHUR KEITH: Sir Humphry Rolleston, Sir Frederick Kenyon, Ladies and Gentlemen, I thank you most sincerely for the attentive way in which you listened to me as I tried to read my paper, which I am afraid I gabbled, for I feared you would not like it.

MR. W. G. SPENCER, O.B.E., M.S., M.B., F.R.C.S., *President of Section of History of the Royal Society of Medicine*: Sir Humphry Rolleston, Ladies and Gentlemen, I have the honour, as President of the History Section of the Royal Society of Medicine, to invite you to express our high appreciation and our warmest feelings of congratulation to Mr. Wellcome upon the re-opening of his Historical Medical Museum. The memory of the Seventeenth International Congress of Medicine in 1913, attended by 7000 people, it is said, from all parts of the earth, has been dulled by the events in following years; but there is one outstanding remembrance of that Congress; for the first time a special section was allotted to the history of medicine, the importance of which was greatly enhanced by the simultaneous opening of this Museum by Mr. Wellcome, the founder. At that opening, Mr. Norman Moore, later Sir Norman Moore, delivered an address which gave prominence to various parts of the Collection, accompanied by numerous references to Medical Museums and Collections in the past. The Royal Society of Medicine in general, and its History Section in parti-

cular, look upon this Museum as its essential and indispensable ally in the propagation and study of the history of medicine in London. Moreover, there are here manuscripts and incunabula which under all proper safeguards it is hoped may become available for study by scholars in that subject. It is certain that the subject which this Museum illustrates must, year by year, become of increasing importance, for one reason because the enormous growth and extent of medical literature, which includes huge amounts of re-duplication, will necessitate abbreviation, the presentation of all parts of medicine by historical methods or on the lines of evolution will be called for; and, for a second reason, that there must come reforms in the way that medical students are instructed. At the moment there is far too much of that which was common to the teaching of schoolboys in days gone by. The medical student has too often to plunge into the middle of things without preliminary explanations, to memorise quantities of disconnected particulars, for the first time to observe, it may be, a disease in an individual. Anyone who looks at the questions in examination papers, or at text-books, will recognise the need for giving the student a preliminary general view of the several parts of medicine he is about to enter upon. When such a reform comes about, this Museum will be enormously appreciated. (Hear, hear). Exhibits, for instance, to take one thing: at the present moment there are exhibits in the Central Hall of the Natural History Museum which furnish examples of what can be done in the way of evolutionary exposition. I am asking you not only to recognise the munificence of Mr. Wellcome, but to join in the hopeful assurance that the Museum may now be set upon a permanent basis which for the future will connect it with the study of the history of medicine in London. Sir Humphry Rolleston, Ladies and Gentlemen, I beg to ask you to pass a hearty vote of thanks to Mr. Wellcome for the founding of this wonderful Museum, for its continuity and for its re-opening, with the hope that, whatever happens, it will be established on a permanent basis for all time to come.

DR. JOHN D. COMRIE, M.A., F.R.C.P., F.S.A., *Lecturer on History of Medicine and Clinical Medicine, University of Edinburgh:* Sir Humphry Rolleston, Ladies and Gentlemen, I feel it is a great pleasure and honour

to second this vote of thanks to Mr. Wellcome, the founder of the Museum, and I will try to do so briefly. Mr. Wellcome is fortunate in having possessed a delightful hobby in the History of Medicine, and he is still more fortunate in having been able to gratify that hobby; he has been most generous in his desire to make us all participators in that hobby, and for that we owe him a very great debt of gratitude; and just as Lorenzo the Magnificent made the Laurentian Library a sort of Mecca for scholars who wished to study the half-forgotten civilisation of Greece and Rome, so Mr. Wellcome has been very largely responsible for another revival of learning—the revival of an interest in ancient medical lore, which has in recent years become so conspicuous a success on both sides of the Atlantic.

There is still another special reason for which I should like to take this opportunity of expressing thanks to Mr. Wellcome. Not only has he instituted this splendid Museum in the capital, but his generosity has also extended to that remote and barbarous region, still inhabited by primitive men, North of the River Tweed. There, some good many years ago, Mr. Wellcome was good enough to establish certain medals and prizes in connection with the History of Medicine Lectureship at Edinburgh University. Stimulated largely by those medals and prizes (I am sure Mr. Wellcome would be very glad to know this), a purely voluntary course of the History of Medicine has been attended, in the 18 years or so since it was founded, by considerably over 1000 students. Now, I am sure we all regret Mr. Wellcome's absence to-night, and I am sure we trust that he will have a safe and happy return at an early date, and I know that we hope that he will be preserved for many years of life and full energy for continuing his beneficent activities.

THE CHAIRMAN: Ladies and Gentlemen, I hope you will command me to communicate to Mr. Wellcome your very high appreciation of the value of the Wellcome Museum, your gratitude to a great benefactor to the study of medical history, and your thanks for his gracious and graceful hospitality which he has provided us with to-day. May I suggest that you should signify the same by standing up for a moment? (*The entire audience rose.*)

DR. C. M. WENYON, C.M.G., C.B.E., M.B., B.SC., *Director-in-Chief, Wellcome Bureau of Scientific Research :* Mr. Chairman, Ladies and Gentlemen, I hope you will forgive me if I speak rather huskily, but I have rather a bad cold. Owing to the regrettable, but nevertheless unavoidable, absence of Mr. Wellcome this evening, it has fallen to my lot as Director-in-Chief of the Wellcome Bureau of Scientific Research, to reply on Mr. Wellcome's behalf to the very cordial vote of thanks which has been proposed by Mr. Spencer and seconded by Dr. Comrie, and which you have carried with such enthusiastic unanimity. I think you, Sir, read to us the telegram which Mr. Wellcome sent, in which he regretted his absence this evening. I myself received a letter from Mr. Wellcome the other day in which he said he was more disappointed than he could express at being deprived of the pleasure of being with us this evening. I am sure we all feel that Mr. Wellcome is thinking of us very earnestly to-night, and that he is hoping every success will attend this ceremony of re-opening the Historical Medical Museum — the Historical Medical Museum which has resulted from Mr. Wellcome's most remarkable foresight, and which has always been the object of very special personal care and attention on his part. I am sure if Mr. Wellcome were here this evening, and were thanking you for the very kind and complimentary remarks which have been made, he would remember, as he did in 1913, the assistance which he has received from many eminent men, not only in this country but all parts of the world, in the shape of advice and support, in the establishment and support of this Historical Medical Museum. He would also remember the past and present staffs of the Historical Medical Museum, who have assisted him very greatly in the construction and building up of the Museum. The Chairman has already referred to the part that the indefatigable Conservator, Mr. Malcolm, has played in this reorganisation work. In that work, the Chief Librarian, Mr. Charles R. Hewitt, who has charge of the wonderful library of 100,000 volumes, has also taken part, as also has the Secretary, Captain P. Johnston-Saint. If it had not been for the whole-hearted enthusiasm of these people, it is very doubtful if the Museum at the present time would have been in the perfect condition you will find it by and by when you inspect it. But, as the Chairman said, the Museum, as you will see it presently, is not a finished article: it is just a commencement, and it

is hoped that it will form a starting-point for developments which will be continued along truly scientific lines. If Mr. Wellcome were here this evening, he would probably tell us of some of his wishes regarding the future of the Museum, and the functions which he hopes it will fulfil. I am sure I am right in saying—in fact I know I am right in saying—that it is Mr. Wellcome's wish that this Museum shall form a centre for study and research in matters connected with the history of medicine, and that it will lead to a definite advancement of science in various directions. When Mr. Wellcome was speaking in 1913 at the previous opening of this Museum, he said that it was his intention to found in London a Bureau of Scientific Research, and that the Historical Medical Museum might very fitly form an adjunct to that Bureau. I think Sir Frederick Kenyon has already referred to the Bureau of Scientific Research, which you will have realised is now an accomplished fact. The Bureau of Scientific Research includes laboratories at Endsleigh Gardens, and a Museum of Medical Science, including tropical medicine, in which the diseases of all climates are illustrated in graphic form from the point of view of their history, etiology, symptomatology, therapeutics and prophylactics. That Museum is to be the object of an opening ceremony at a not very distant date. Affiliated to the Bureau are its very extensive Research Laboratories at Beckenham and the Entomological Laboratory; so the Historical Medical Museum, as you will see, is only one of the many institutions which Mr. Wellcome's unbounded generosity has founded. I think there is very little more that I need say, but I should like very much on Mr. Wellcome's behalf to thank you, because, in spite of the inclemency of the weather this evening, so many of you have been able to be present. Many letters have been received from people in this country and various parts of the Continent, expressing very sincere regret that they have been unable to be present. Finally, I must thank you formally for the very cordial thanks which you have passed to Mr. Wellcome, and which you have carried so unanimously.

THE CHAIRMAN: It only remains for me now to declare, on behalf of the generous founder, the Museum re-opened, and we will follow Dr. Wenyon and the Conservator through the Museum.

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